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RAILWAY AGE

DECEMBER 25, 1948

Greetings . . .

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RAILWAY AGE

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IN THIS ISSUE

EDITORIALS:

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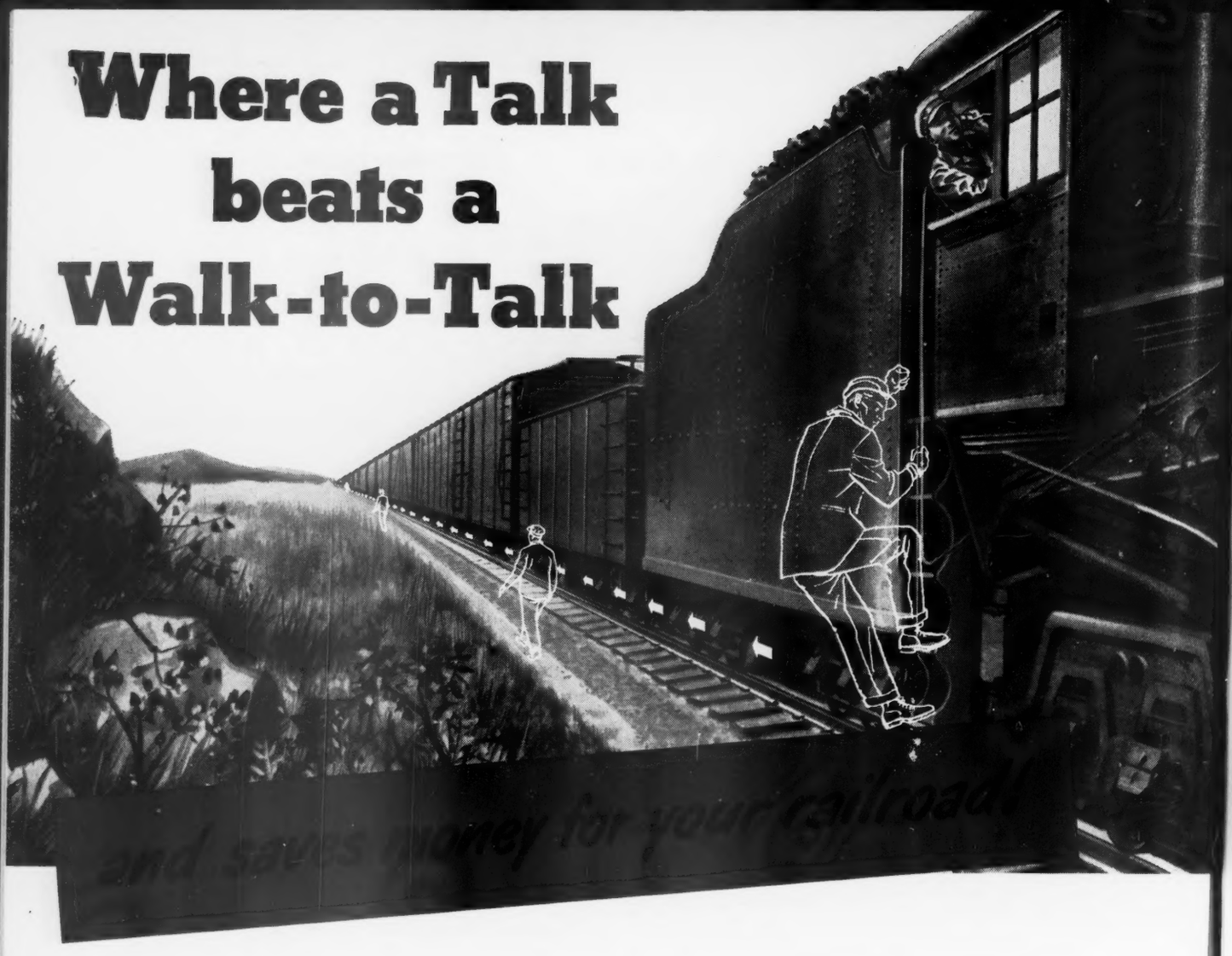
Where a Talk beats a Walk-to-Talk



Consider the number of times trains must stop, with crew members often required to walk considerable distances to exchange information. In addition to direct costs involved in starting and stopping a train, think of the time that is lost, the schedules that are disrupted and the loss in track capacity and availability of rolling stock. Then you begin to realize how much "Union" Inductive Train Communication can save in those instances alone.

With "Union" I.T.C., many stops can be eliminated because crews on the locomotive and caboose can talk to each other, to wayside stations, and to other trains, without leaving their normal posts. They can exchange information pertinent to operation of the train while the train is in motion. When stops are necessary, the crews can use the I.T.C. to take such action as is necessary to reduce the delay—do not have to *walk to talk* about train orders, the planning of switching operations or the execution of routine air-brake tests. Delays do not occur while hand or lamp signals are relayed around curves, or through darkness and bad weather.

Remember, these are only a *few* of the ways "Union" I.T.C. can save time and money for your railroad. This same, swift communication has equally important advantages in classification yards, between yard conductor and locomotive crews—in mainline service, between engineman and conductors on the same train, or between crews on separate trains and between train crews and station operators. Write for Bulletin 160, or call upon your nearest "Union" district office for full information.

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I.T.C.

WEEK AT A GLANCE

AIR DIFFUSION: In an article starting on page 34, F. Honerkamp, chief engineer of the Anemostat Corporation of America, discusses the design principles of the Anemostat type of air diffuser for air-conditioned cars and the relation of these principles to service performance.

CHRISTMAS PRESENT: A lot of different equipment manufacturers got a nice Christmas present when the New York Central this week ordered 123 Diesel locomotive units and 5,350 freight cars.

THREE FACTS: On page 48 we publish the year-end statement of William T. Faricy, president of the Association of American Railroads. Three facts, Mr. Faricy says, stand out in the railroads' 1948 record: (1) That near-peacetime-record traffic was moved with an all-time efficiency record; (2) that costs have increased so much more than rates since 1939 that even this record handling of near-record traffic yielded only an inadequate return; and (3) that 1948 expenditures to increase railroad capacity and improve railroad service totaled one and one-quarter billion dollars—an amount which, when final figures are in, may also turn out to be an all-time high.

OUT OF THE MUD: Back in the Thirties the Apalachicola Northern, a Florida short line, had one rail deep in the mud, and the other in the red. Today it is an up-and-coming carrier, completely rebuilt and Dieselized, physically and financially sound, and with enough traffic to give promise of continuing prosperity. How the change was accomplished is the subject of an interesting illustrated article which starts on page 31.

DIESEL CLASSROOM: As a means of helping to eliminate train delays due to man failures, the Electro-Motive Division of General Motors Corporation is giving intensive, personalized, on-line instruction in Diesel operation and maintenance to groups of railroad employees whose duties require them to have such specialized knowledge. The program features a new technique in educational presentation, in which a locomotive is used as the classroom. The procedure is described on page 30.

DREAMS COME TRUE: The small boy who dreams of becoming a locomotive engineer—but who thinks he might make more money in some executive job—better settle for pulling a throttle on a local freight. That at least is a fair conclusion from the latest "Monthly Comment" of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. The Comment, reviewed on page 37, states, among other things, that ". . . the annual compensation of local and way engineers . . . exceeded by $378 per annum the average compensation of division officers, assistants and staff assistants." Other subjects covered in the Comment are estimated capital outlays for the first quarter of 1949; the coverage of fixed charges by railroads in 1940 and 1948; commodity statistics; bituminous coal traffic; and relation between ton-miles and certain types of employment.

PROTECTED SIGNALING: "Signaling That No Wind Can Harm" is the title of an illustrated article beginning on page 41 describing installation by the Seaboard Air Line on 248 mi. of main line between Hamlet, N. C., and Savannah, Ga., of a signaling system which is, in two respects, the first of its kind.

40-HOUR WEEK?: The Presidential Emergency Board, which has been considering the non-operating brothers' demands for a 25-cent-an-hour pay increase, a 40-hour, five-day week, and arbitrary overtime and double-time for Saturday and Sunday work, submitted its report on December 17. It recommended a seven-cents-an-hour increase retroactive to October 1 and a 40-hour week effective September 1, 1949. The brothers don't like the report—and want to reopen negotiations. The report is summarized on page 44. As reported in our News columns, the railroads have requested the Interstate Commerce Commission to take official notice of it in connection with the pending Ex Parte 168 freight-rate increase case.

ECONOMIC IGNORANCE: As its title indicates, our leading editorial points out that economic ignorance invites disastrous labor policies. The ideas therein are not ours alone; the editorial quotes distinguished labor economists to the effect that the "political and economic consequences" of the unions' new monopolistic powers are too little understood; they will ultimately react to the detriment of labor itself.

NO BLACK MARKET: Testimony presented at New York early this week in the second hearing (fully reported in our News section) in the Interstate Commerce Commission's investigation of railroad and Pullman space reservation practices pretty thoroughly exploded the charges of a "black market" in coach seats or Pullman berths. Some people there are who pay premiums for such space—but they are relatively few, and most of them admit to doing it voluntarily and usually to hotel or travel agency employees—not to railroad men. The people who do pay are themselves responsible, at least in part, for whatever trouble does exist, as the Pennylvania's Homes Bannard, one of the railroad witnesses, pertinently pointed out. And so are the people who turn down section space and insist on closed rooms, which the railroads are providing as rapidly as they can. Incidentally, the railroads have their reservation troubles, too—last-minute cancellations, for instance.

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Shown above is the new buffet-lounge-observation car in service on The Trail Blazer and The Jeffersonian—Pennsylvania Railroad's all-coach streamliners—one of the many cars in which Keystone Lighting adds to the passengers' comfort. Others include coaches, dining cars, sleeping cars—so that Electric Service is fully qualified to furnish lighting for entire trains. Find out about the many fixtures—fluorescent and incandescent—available for your trains by writing for our illustrated catalog.

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RAILWAY AGE

ECONOMIC IGNORANCE INVITES DISASTROUS LABOR POLICIES

It would have been better for railroad employees if the adjustment in forces which application of the 40-hour week to all "non-operating" jobs will necessitate had been fully explained to them before they empowered their leaders to insist upon rapid nationwide adoption of this expensive innovation. The forthcoming experience may, however, still provide profitable popular education in elementary economics if full explanation is made to employees and the public as each necessary step is taken in the process of revising railroad service and employment to the sharp upward leap of hourly labor-cost.

Members of labor organizations are never warned by the union press against union policies which threaten their livelihood by squeezing the profitability out of the industries which employ them—because the entire union press is a "captive" press, controlled by the same chieftains who control the unions. When management—or such independent industrial papers as *Railway Age*—try to impart basic economic information to unionists the effort is greeted with suspicion by most unionists and, of course, by torrents of abuse from the union press—especially that part which is staffed by professional promoters of class-warfare.

There are some unionists, however, who are endowed with enough intelligence not to accept as infallible revelation everything they read in the union press; and sufficiently open-minded to suspect that management occasionally may say things which are not undiluted falsehood. There is, thus, a potential audience, however small, among unionists for honest information and instruction on economic questions bearing on union policy. Management neglects its patriotic duty and its obligation to protect the property entrusted to its control if it fails to exert every reasonable effort to make such information readily available to those unionists who might heed it—because, beyond any doubt, the unions have become a pressure group of such formidable power that, acting irresponsibly and ignorantly, they can very quickly wreck the economy—and hence the country and the unionists themselves. There is plenty of disturbing evidence from sources of unimpeachable competence and impartiality to confirm the belief that this danger is real and pressing.

No Restraint on Union Monopoly

For example, in the Quarterly Journal of Economics for November, there appears an article entitled "The Union as a Monopoly" by a Yale University economist, C. E. Lindblom. Mr. Lindblom maintains that "unions have now finally achieved a significant degree of monopoly power" and that they "can and will push wage rates up to levels" which will result in unemployment, exactly as an industrial monopolist would do if there were no

law to stop him; and there is no law to curb the power of union monopolism. Indeed, Mr. Lindblom has discovered that union monopoly lacks some of the natural "brakes" which curb the price-raising zeal of an industrial monopoly.

For instance, an industrial monopolist will run the price of his product up to the point where, when this price is multiplied by the quantity which will be bought at that price, the monopolist gets the highest total return. Thus, if a monopolist controls a product which costs $1 to make, he will probably not ask $500 for it and thus be able to sell, maybe, only a half-dozen units (netting him 6 x $499 or $2,994). Instead he is more likely to price the article at $10, at which level he can find customers for, say, 10,000 units, yielding him $90,000 profit. If he should believe he could get a million customers by selling his product for $1.50, he would undoubtedly lower his price to that level and thus raise his profit to $500,000. Thus, despite all the justifiable criticism leveled at the industrial monopolist, it is evident that there are *natural restraints* on him, even in the absence of regulation, which prevent his carrying price extortion to extreme limits. There are no such restraints, Mr. Lindblom shows, on a union monopoly.

The reason is readily apparent—*a union is not necessarily concerned with getting the largest wage receipts for its members as a whole.* Maybe the union is concerned with the welfare only of a majority of its members. Suppose there are 100,000 jobs when the wage is $1.25 an hour—giving union members $125,000—but that jobs fall to 50,000 when the wage is raised to $2, making the total income of union members only $100,000. Would anyone assert that a union would not risk cutting its jobs and membership in half in order to get higher pay for the "old heads," at the expense of the jobs of the younger members? This is not a theoretical question on the railroads, as a lot of employees of limited seniority have already learned, and as a lot more of them probably are going to learn.

Employees Must Be Taught

Mr. Lindblom discerns other important aspects of the practically unlimited power now delivered into the hands of the union leaders, and believes restraints are now quite lacking to prevent wages from being pushed to levels where they will "dampen business activity." Corroborative evidence in this direction is available in a pamphlet* entitled "Industry-Wide Bargaining," by Columbia University's Professor Leo Wolman, the nation's most eminent authority on labor economics. The "political and economic consequences" of the union's new power and the way they are using it, Professor Wolman asserts, are little understood by the public, or even by management and unionists. He concludes, after lucid exposition of the situation, that "when the inflation ends, as it always does, we may expect these policies of national unionism and national bargaining to shrink the total volume of employment and to divert to the larger industrial centers a good deal of what employment is left."

The disastrous trends which these two economists have so clearly elucidated are not going to be corrected until the American people, including members of labor unions, have a better understanding than they now have of what is being done to them. They are not going to get this understanding unless management takes the initiative in providing the necessary information. On the railroads, particularly, these things are not going to be understood by employees until, first, all supervisory forces are thoroughly familiar with them. It certainly cannot be said, for the railroad industry generally, that the supervisory staff has been called upon to master information of this kind to the degree necessary if it is to be the means that it should be for educating employees and the public.

* Published by the Foundation for Economic Education, Irvington-on-Hudson, New York.

RESPONSIBILITY FOR REDUCING UPKEEP COSTS

Just whose responsibility is it on a railroad to take the initiative in reducing property maintenance costs? Under present conditions the maintenance officer finds himself in not too uncomfortable a position. To be sure, costs and wages are high and likely to go higher, but rate increases, until recently anyhow, have been sufficient to avoid more than a slight squeeze on maintenance expenses. If past experience is any guide though, the time will come when stringent economies will be necessary. This may happen even with traffic remaining at a moderately high level; in which event the problem will be doubly difficult, because it will mean cutting costs without reducing maintenance standards.

It is better to be prepared in advance for such an exigency than to wait until it arrives, and then hastily adopt makeshift expedients, as happened during the depression of the Thirties. What the roads are doing now to reduce costs by mechanization and through more durable construction is progress in the right direction. But has this progress gone far enough to accomplish substantial reductions in costs without injury to the condition of the properties?

The duty to control maintenance outlays, in view of the probabilities of the early future, can scarcely be adequately discharged merely by maintaining a general attitude of alertness in effecting day-to-day economies in the use of materials and labor—a dollar here and a dollar there. So far as it goes, this way of approaching the problem is correct, but it hardly measures up to getting the results which are always desirable and might become acutely necessary. If each maintenance officer were to imagine himself a vice-president-in-charge-of-reducing-expenses-30-per-cent, and should strive earnestly to attain such a degree of economy, is it not likely that the results would be spectacular? Who indeed would care to state positively that such an objective might not, in fact, be attained?

BALANCING CAR WHEELS

It is obvious that unbalance of passenger-car wheels and lack of concentricity with the journals have an adverse effect on riding qualities. What the railroads want to know is the degree of accuracy required in these two particulars to secure desired easy riding in passenger cars and other equipment. The subject has been under investigation for a number of years, and heretofore two questions have remained largely unanswered, namely: Do passenger-car wheels, as now manufactured and mounted on axles, need to be in more accurate dynamic balance? And, if so, how is the weight required for dynamic balance to be added to or removed from the wheel structure, as the case may be?

Specific information and definite recommendations covering the first question doubtless will soon be available as a result of recent tests made by the Association of American Railroads in conjunction with the Budd Company. In this series of road tests to determine the relation between wheel balance, tread contour, variations in track gage and riding comfort, a large amount of test data was collected and is now being analyzed and evaluated with a view to developing specific conclusions.

Considerable experimentation has been carried on in attempting to find a satisfactory answer to the question of adding or subtracting the weight neccessary to secure dynamic balance. The General Motors "Train of Tomorrow," for example, is credited with exceptional riding comfort, at all speeds, due largely to the fact that all wheels after being mounted on axles, were tested, in a modern balancing machine and necessary corrections made to bring each wheel into accurate dynamic balance. The unbalance found varied from a few ounces to three pounds, which would have caused severe hammer blows on rail and equipment at every revolution of the wheels, increasing rapidly with the speed. In the case of the G. M. train, the unbalance was corrected in each wheel by hand grinding out the required amount of metal from the indicated location on the underside of the rim.

The Illinois Central's "Daylight," operating daily between Chicago and St. Louis, Mo., is also equipped with dynamically balanced car wheels, being the only train in regular service with this refinement in wheel condition. With this train, instead of grinding off excess metal, additional weight was added to the wheel just under the rim and opposite the point of unbalance. The method used was to clean thoroughly and tin the area, to which an accurately weighed amount of melted babbit alloy was then applied. Good results have been secured to date with this application and the balanced wheels not only give a smoother and more comfortable ride but reduce the wear on equipment and effect appreciable savings in the cost of maintaining wheels and trucks.

In view of these facts, the report of the A. A. R. road tests of dynamically balanced passenger-car wheels, as compared with those which have not been balanced, will be looked for with much interest by railroads, particularly those operating modern high-speed passenger trains, as an aid to determining the limits beyond which some correction is necessary.

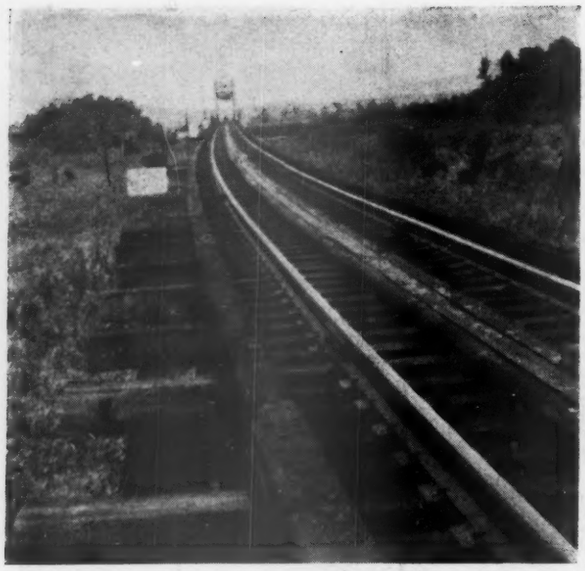
MANAGEMENT'S RESPONSIBILITIES TO EMPLOYEES

A clear-thinking, understanding management that is interested in, and knows, the employees and their problems has certain responsibilities. Briefly, these goals of management's responsibilities to employees are:

1. A successful business—one that earns regular profits.
2. Steady employment.
3. The opportunity of the individual employee to develop to the fullest extent of his abilities.
4. The employee's chance to become a capitalist.
5. Good working conditions.

Now I'll admit that these objectives have never been reached completely by any one employer, though a great number of companies have taken important steps in this direction. Gains have been made and are constantly being made toward realizing these responsibilities of management. The first step is management's recognition of the problems of labor; studying the causes and effects in helping to solve those problems. The newer labor leaders must realize their responsibilities, too; they represent a new kind of management on a gigantic scale in their unions.

—Richard R. Deupree, president of the Procter & Gamble Co.



A section of the five-mile trestle over the delta of the Apalachicola river, which was completely rebuilt

a few years before the recent war, it was acquired by the St. Joe Paper Company, which had built one of the largest and most modern paper mills in the country at Port St. Joe, the southern terminus of the line. The traffic of this company alone—inbound pulpwood and outbound Kraft paper—afforded a life-saving injection of revenues into the railway's finances. Then, during the war, the building of numerous military establishments along and near the line added further revenues.

The new management did not, however, wait for wartime revenues before beginning to rebuild the line, which when they took it over was in what is known locally as "sorry shape." They embarked at once on a complete rehabilitation program which, despite delays caused by wartime scarcity of materials, has resulted in the strengthening of its numerous bridges and trestles, including a five-mile structure across the Apalachicola river and its adjacent swamps, and relaying two-thirds of the line, or nearly 70 mi., with new 90-lb. rail. The remainder of the line is being relaid with new 90-lb. rail as fast as it can be secured from the mills.

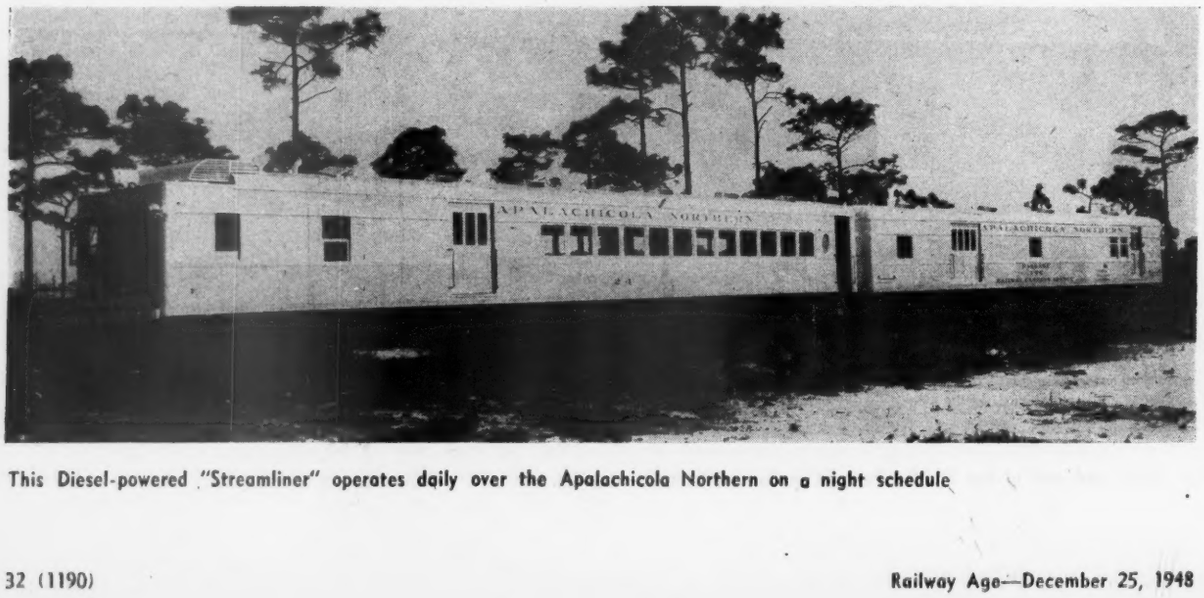
Long Trestle Rebuilt

There are 35,000 lin. ft. of bridge and trestle structures on this 99-mi. line. In addition to the five-mile structure, these include 9 bridges from 12 to 30 ft. in height and from 150 to 450 ft. in length, as well as 15 smaller structures. All of these bridges were rebuilt, new piles being driven where necessary.

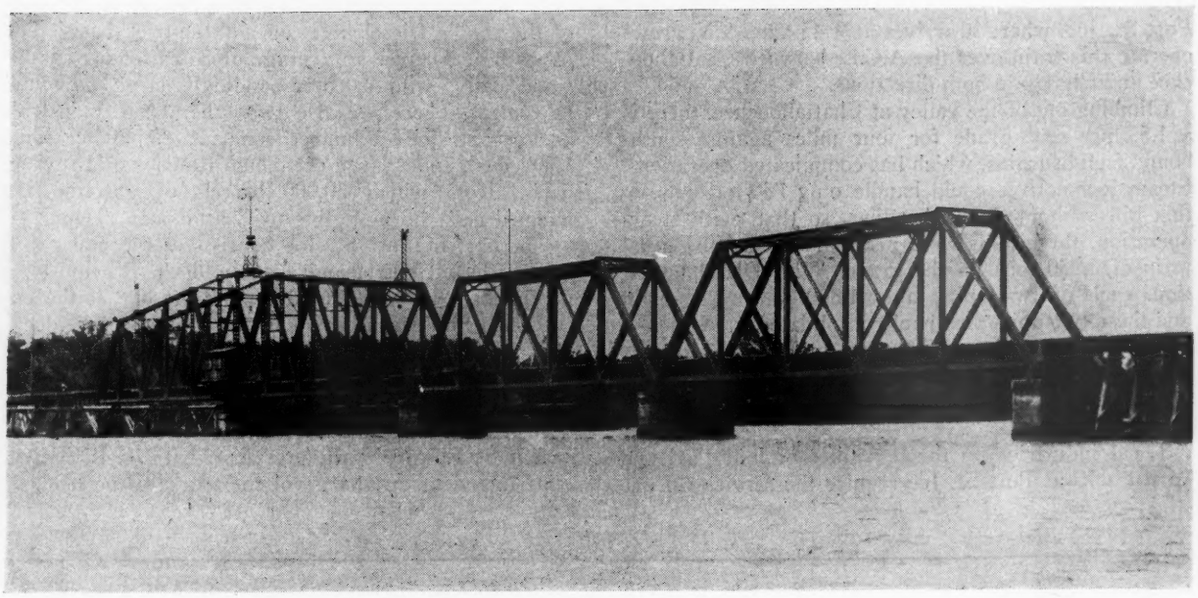
One of the first tasks, and by far the largest, facing the new management was the rebuilding of the long bridge and trestle structure across the delta of the Apalachicola river. When the line was originally built in 1905-6, the bents in this structure were spaced on 16-ft. centers. This light construction had been strengthened in 1917-18 by driving intermediate bents —on 8-ft. centers—but by the time the new owners took over, the entire structure had deteriorated badly.

As rebuilt, the structure contains 1,986 bents and six steel spans, the latter all on concrete piers. One group of three steel spans, with a combined length of 275 ft., includes a swing span. The other three steel spans, which are located within a few hundred yards of the drawbridge, have a combined length of 250 ft. Except for these steel spans, the entire structure is constructed of timber.

The original bents were driven with yellow pine piles in lengths ranging from 65 ft. to 150 ft. Above the water level considerable decay was evident in the piles, but inspection showed that most of them were just as sound below the water level as when driven. Accordingly, where the piles in a bent were sound, they were cut off below the water level and were topped with new frame bents, and the deck was rebuilt with new creosoted caps, stringers and ties. Where the old piles were decayed or otherwise weakened below the water line, new pile bents were driven. At the same time, seven miles of track over the bridge and on its approaches were relaid with new 90-lb. rail on new tie plates.



This Diesel-powered "Streamliner" operates daily over the Apalachicola Northern on a night schedule



The three-span bridge, with its drawspan, over the main channel of the Apalachicola river

In rebuilding this structure, the following quantities of materials, among others, were used: 4,000 12-in. by 12-in. by 14-ft. timbers (672,000 ft. b.m.); 2,000 12-in. by 12-in. by 16-ft. timbers (384,000 ft. b.m.); 487,872 ft. b.m. of bridge ties; 65,000 lin. ft. of 65-ft. piles; 768,000 ft. b.m. of 8-in. by 14-in. by 16-ft. stringers; 120,000 ft. b.m. of 6-in. by 8-in. by 17-ft. guard rails; and 256,000 ft. b.m. of 3-in. by 8-in. bracing material.

Bunch Section Gangs in Rail Work

All of the work was done by company forces, augmented by additional labor from Apalachicola. Since the bridge is near Apalachicola, it was not necessary to establish camps or to provide camp cars for the bridge workmen. As all trains of the A. N. are run at night, there was minimum interference with either train movements or the construction work on the bridge. Insofar as possible, each day's work was completed during the daylight hours, so that the bridge might be available at night for train movements. The entire work extended over a period of about 14 months.

Since all freight and passenger trains on the A. N. are operated at night, the relaying of rail has also been accomplished with no interference either to train movements or to the rail gangs. The procedure followed has been simple, yet effective under the circumstances. When the rail and fastenings have been distributed along the track, the foremen whose section is involved, plus the foreman whose territories adjoin at each end, with their gangs (usually five men each), are assembled into a rail-laying gang. The old rail is not taken up for any greater distance than can be relaid, tie-plated and fastened down within a day.

Through experience the roadmaster is able to assign the various rail-laying operations to the consolidated section gangs in a manner which will produce the best results and, at the end of each day, a considerable distance of new rail has been laid and spiked, and is ready for the night train movements. The next day the same procedure is repeated. Then, as a section is completed, one section gang returns to its regular duties and the next nearest section gang joins the rail-laying gang. In this manner all members of the rail-laying gang return to their homes, only a short distance away, each night, and there is no necessity for expensive camp operations.

In general, the A.N. parallels the Apalachicola river at some distance east of it and on high ground. After crossing the delta on the long bridge, however, a stretch of seven miles of track westward toward Port St. Joe was subject to inundation by the so-called "back streams" forming part of the delta. Using much the same type of gang organization as was used in laying rail, the grade throughout this entire area was raised, which involved the placing of approximately 80,000 cu. yd. of filling material.

Revised and Improved Operations

The rebuilding of the line immediately permitted more efficient operations with the steam power formerly used. However, since the purchase of four Electro-Motive Diesel-electric freight locomotives—of the road-switcher type—in October, 1947, still more efficient operations have been possible.

A 250-hp. Diesel-electric passenger power unit completes the Dieselization of this road. The "Streamliner," shown in one of the illustrations, consists of a power car, in which baggage as well as passengers are handled, and a trailer car for express and mail. This train leaves Port St. Joe at 8 p.m., makes connections at Chattahoochee with Louisville & Nashville and Seaboard Air Line trains, then proceeds 30 mi. further over the Atlantic Coast Line to Climax, Ga., where other important connections are made. It returns to Chattahoochee after a short lay-over, then to

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For example, in the Quarterly Journal of Economics for November, there appears an article entitled "The Union as a Monopoly" by a Yale University economist, C. E. Lindblom. Mr. Lindblom maintains that "unions have now finally achieved a significant degree of monopoly power" and that they "can and will push wage rates up to levels" which will result in unemployment, exactly as an industrial monopolist would do if there were no

law to stop him; and there is no law to curb the power of union monopolism. Indeed, Mr. Lindblom has discovered that union monopoly lacks some of the natural "brakes" which curb the price-raising zeal of an industrial monopoly.

For instance, an industrial monopolist will run the price of his product up to the point where, when this price is multiplied by the quantity which will be bought at that price, the monopolist gets the highest total return. Thus, if a monopolist controls a product which costs $1 to make, he will probably not ask $500 for it and thus be able to sell, maybe, only a half-dozen units (netting him 6 x $499 or $2,994). Instead he is more likely to price the article at $10, at which level he can find customers for, say, 10,000 units, yielding him $90,000 profit. If he should believe he could get a million customers by selling his product for $1.50, he would undoubtedly lower his price to that level and thus raise his profit to $500,000. Thus, despite all the justifiable criticism leveled at the industrial monopolist, it is evident that there are *natural restraints* on him, even in the absence of regulation, which prevent his carrying price extortion to extreme limits. There are no such restraints, Mr. Lindblom shows, on a union monopoly.

The reason is readily apparent—*a union is not necessarily concerned with getting the largest wage receipts for its members as a whole.* Maybe the union is concerned with the welfare only of a majority of its members. Suppose there are 100,000 jobs when the wage is $1.25 an hour—giving union members $125,000—but that jobs fall to 50,000 when the wage is raised to $2, making the total income of union members only $100,000. Would anyone assert that a union would not risk cutting its jobs and membership in half in order to get higher pay for the "old heads," at the expense of the jobs of the younger members? This is not a theoretical question on the railroads, as a lot of employees of limited seniority have already learned, and as a lot more of them probably are going to learn.

Employees Must Be Taught

Mr. Lindblom discerns other important aspects of the practically unlimited power now delivered into the hands of the union leaders, and believes restraints are now quite lacking to prevent wages from being pushed to levels where they will "dampen business activity." Corroborative evidence in this direction is available in a pamphlet* entitled "Industry-Wide Bargaining," by Columbia University's Professor Leo Wolman, the nation's most eminent authority on labor economics. The "political and economic consequences" of the union's new power and the way they are using it, Professor Wolman asserts, are little understood by the public, or even by management and unionists. He concludes, after lucid exposition of the situation, that "when the inflation ends, as it always does, we may expect these policies of national unionism and national bargaining to shrink the total volume of employment and to divert to the larger industrial centers a good deal of what employment is left."

The disastrous trends which these two economists have so clearly elucidated are not going to be corrected until the American people, including members of labor unions, have a better understanding than they now have of what is being done to them. They are not going to get this understanding unless management takes the initiative in providing the necessary information. On the railroads, particularly, these things are not going to be understood by employees until, first, all supervisory forces are thoroughly familiar with them. It certainly cannot be said, for the railroad industry generally, that the supervisory staff has been called upon to master information of this kind to the degree necessary if it is to be the means that it should be for educating employees and the public.

* Published by the Foundation for Economic Education, Irvington-on-Hudson, New York.

RESPONSIBILITY FOR REDUCING UPKEEP COSTS

Just whose responsibility is it on a railroad to take the initiative in reducing property maintenance costs? Under present conditions the maintenance officer finds himself in not too uncomfortable a position. To be sure, costs and wages are high and likely to go higher, but rate increases, until recently anyhow, have been sufficient to avoid more than a slight squeeze on maintenance expenses. If past experience is any guide though, the time will come when stringent economies will be necessary. This may happen even with traffic remaining at a moderately high level; in which event the problem will be doubly difficult, because it will mean cutting costs without reducing maintenance standards.

It is better to be prepared in advance for such an exigency than to wait until it arrives, and then hastily adopt makeshift expedients, as happened during the depression of the Thirties. What the roads are doing now to reduce costs by mechanization and through more durable construction is progress in the right direction. But has this progress gone far enough to accomplish substantial reductions in costs without injury to the condition of the properties?

The duty to control maintenance outlays, in view of the probabilities of the early future, can scarcely be adequately discharged merely by maintaining a general attitude of alertness in effecting day-to-day economies in the use of materials and labor—a dollar here and a dollar there. So far as it goes, this way of approaching the problem is correct, but it hardly measures up to getting the results which are always desirable and might become acutely necessary. If each maintenance officer were to imagine himself a vice-president-in-charge-of-reducing-expenses-30-per-cent, and should strive earnestly to attain such a degree of economy, is it not likely that the results would be spectacular? Who indeed would care to state positively that such an objective might not, in fact, be attained?

BALANCING CAR WHEELS

It is obvious that unbalance of passenger-car wheels and lack of concentricity with the journals have an adverse effect on riding qualities. What the railroads want to know is the degree of accuracy required in these two particulars to secure desired easy riding in passenger cars and other equipment. The subject has been under investigation for a number of years, and heretofore two questions have remained largely unanswered, namely: Do passenger-car wheels, as now manufactured and mounted on axles, need to be in more accurate dynamic balance? And, if so, how is the weight required for dynamic balance to be added to or removed from the wheel structure, as the case may be?

Specific information and definite recommendations covering the first question doubtless will soon be available as a result of recent tests made by the Association of American Railroads in conjunction with the Budd Company. In this series of road tests to determine the relation between wheel balance, tread contour, variations in track gage and riding comfort, a large amount of test data was collected and is now being analyzed and evaluated with a view to developing specific conclusions.

Considerable experimentation has been carried on in attempting to find a satisfactory answer to the question of adding or subtracting the weight neccessary to secure dynamic balance. The General Motors "Train of Tomorrow," for example, is credited with exceptional riding comfort, at all speeds, due largely to the fact that all wheels after being mounted on axles, were tested, in a modern balancing machine and necessary corrections made to bring each wheel into accurate dynamic balance. The unbalance found varied from a few ounces to three pounds, which would have caused severe hammer blows on rail and equipment at every revolution of the wheels, increasing rapidly with the speed. In the case of the G. M. train, the unbalance was corrected in each wheel by hand grinding out the required amount of metal from the indicated location on the underside of the rim.

The Illinois Central's "Daylight," operating daily between Chicago and St. Louis, Mo., is also equipped with dynamically balanced car wheels, being the only train in regular service with this refinement in wheel condition. With this train, instead of grinding off excess metal, additional weight was added to the wheel just under the rim and opposite the point of unbalance. The method used was to clean thoroughly and tin the area, to which an accurately weighed amount of melted babbit alloy was then applied. Good results have been secured to date with this application and the balanced wheels not only give a smoother and more comfortable ride but reduce the wear on equipment and effect appreciable savings in the cost of maintaining wheels and trucks.

In view of these facts, the report of the A. A. R. road tests of dynamically balanced passenger-car wheels, as compared with those which have not been balanced, will be looked for with much interest by railroads, particularly those operating modern high-speed passenger trains, as an aid to determining the limits beyond which some correction is necessary.

MANAGEMENT'S RESPONSIBILITIES TO EMPLOYEES

A clear-thinking, understanding management that is interested in, and knows, the employees and their problems has certain responsibilities. Briefly, these goals of management's responsibilities to employees are:

1. A successful business—one that earns regular profits.
2. Steady employment.
3. The opportunity of the individual employee to develop to the fullest extent of his abilities.
4. The employee's chance to become a capitalist.
5. Good working conditions.

Now I'll admit that these objectives have never been reached completely by any one employer, though a great number of companies have taken important steps in this direction. Gains have been made and are constantly being made toward realizing these responsibilities of management. The first step is management's recognition of the problems of labor; studying the causes and effects in helping to solve those problems. The newer labor leaders must realize their responsibilities, too; they represent a new kind of management on a gigantic scale in their unions.

—Richard R. Deupree, president of the Procter & Gamble Co.

Railroad personnel receiving instruction in (left) operation of retractable coupler; (center) engineman's controls; (right) Diesel engine governor

DIESEL LOCOMOTIVE USED AS CLASSROOM

More than 7,800 railway operating and maintenance employees have been given special training in phases of their work with General Motors locomotives since a new intensive, personalized, on-the-railroad instruction program was instituted by the Service Department of the Electro-Motive Division on February 16. This program features a new technique in educational presentation. Using a locomotive as a classroom, railroad men in large numbers receive a fundamental course of instruction in a relatively short time, one of the major objectives being to eliminate train delays due to man failures.

The program was initiated on the Pennsylvania and later presented at two different times on the Baltimore & Ohio, also on the Maine Central, Canadian National, Georgia Railroad and Western of Alabama, Grand Trunk Western, Lehigh Valley and the Reading, and just recently again on the Pennsylvania.

The course is a further step in the Diesel education of railroad men, in addition to the normal program, carried on by Electro-Motive's staff of 120 operating instructors ever since the early days of the division.

A good example of the new instruction method is afforded by experience on the Pennsylvania where it had been used at Logansport, Ind., Ft. Wayne, Terre Haute, and Indianapolis; East St. Louis, Ill.; Crestline, Ohio; the Conway and Pitcairn yards at Pittsburgh, Pa., and at Altoona and Harrisburg.

A General Motors locomotive of one, two or three units, is set out by the railroad at a division point or other terminal where the instruction can reach a large number of operating employees. The number of units to be used depends upon the number of men available for each two-hour period of instruction, for which the railroad does its own scheduling.

The trainees are generally divided into groups of two, three or four men for the two hours into which the highly-concentrated instruction has been organized. One group receives instruction in electrical equipment while another is discussing mechanical equipment and a third air brakes. A fourth, which has completed the subjects mentioned above, concludes its training with instruction on the safety control devices such as the engine overspeed trip, the pneumatic control switch, and fuses. One instructor handles the same group through all the phases of instruction.

In cases where the locomotive equipment includes a steam generator (most of the locomotives provided for freight service do not have steam generators) there is a special section covering instruction on both its operation and maintenance.

Most of the railroad operating people for whom the course has been given are enginemen, firemen or road supervisors. However, instruction is also given to maintenance groups and their supervision.

On the Pennsylvania, where the course was carried on for 39 working days in October and November and covered freight power, it reached 2,469 men. At the start of the program in February, more than 1,500 men received training on passenger locomotives on the Pennsylvania. This instruction was given at that time for 16 consecutive days.

The total instruction on the Baltimore & Ohio reached 1,539 men; on the Maine Central, 146; the Canadian National, 746; the Georgia Railroad and Western of Alabama, 158; the Grand Trunk Western, 243; the Lehigh Valley, 730; and on the Reading more than 300.

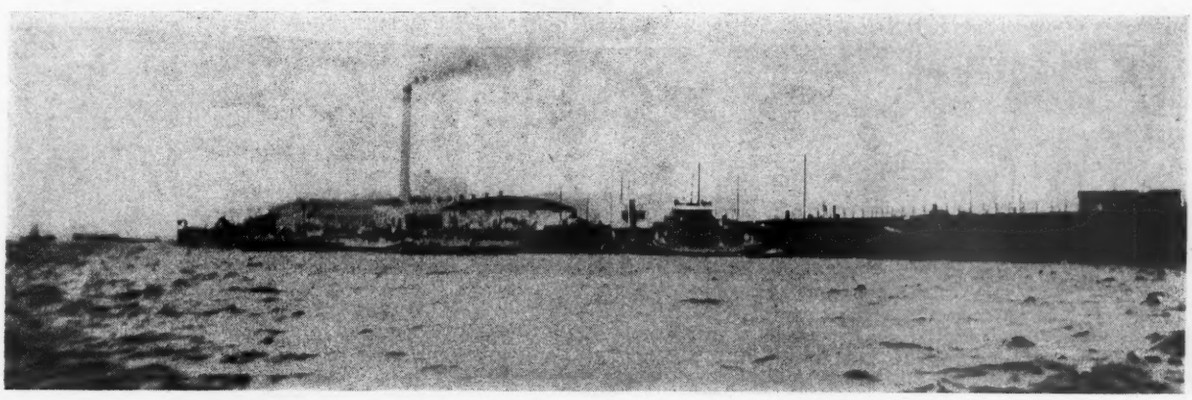
Employees of the A.N. line up along a pair of Electro-Motive Diesel-electric road-switchers starting out with a train of 111 cars

SHORT LINE PULLS ITSELF OUT OF THE MUD

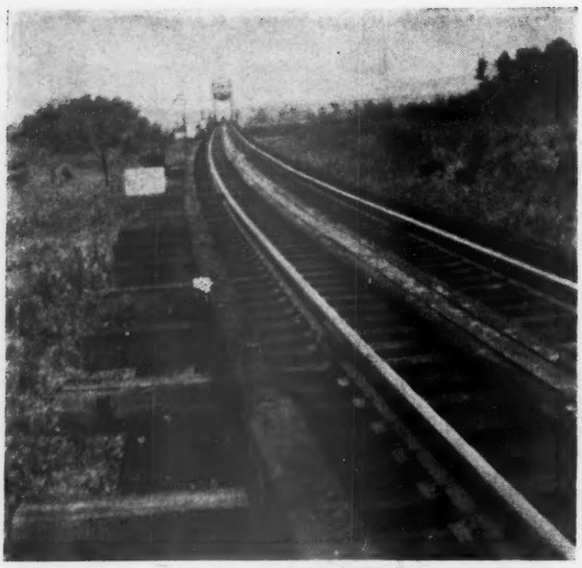
Apalachicola Northern, Florida road once deep in the red, is now Dieselized throughout and has been completely rebuilt by its new owners

The Apalachicola Northern, a 99-mi. single-track line between Port St. Joe, on the upper west coast of Florida, and Chattahoochee, near the northern border of the state, was virtually at the end of its rope in the late Thirties, following three decades of the vicissitudes common to most short lines of that era and that territory. The depression and highway competition were responsible for the sad state of the railway's finances and the concomitant deterioration in its physical plant. Now, the railway is extremely sound, physically and financially, with enough traffic to insure continued prosperity; with its many bridges rebuilt; new and heavier rail; and new Diesel locomotives to handle all of its traffic.

The metamorphosis of this line, which was built near the turn of the century, was brought about when,



The docks and mill of the St. Joe Paper Company at Port St. Joe, Fla.



A section of the five-mile trestle over the delta of the Apalachicola river, which was completely rebuilt

a few years before the recent war, it was acquired by the St. Joe Paper Company, which had built one of the largest and most modern paper mills in the country at Port St. Joe, the southern terminus of the line. The traffic of this company alone—inbound pulpwood and outbound Kraft paper—afforded a life-saving injection of revenues into the railway's finances. Then, during the war, the building of numerous military establishments along and near the line added further revenues.

The new management did not, however, wait for wartime revenues before beginning to rebuild the line, which when they took it over was in what is known locally as "sorry shape." They embarked at once on a complete rehabilitation program which, despite delays caused by wartime scarcity of materials, has resulted in the strengthening of its numerous bridges and trestles, including a five-mile structure across the Apalachicola river and its adjacent swamps, and relaying two-thirds of the line, or nearly 70 mi., with new 90-lb. rail. The remainder of the line is being relaid with new 90-lb. rail as fast as it can be secured from the mills.

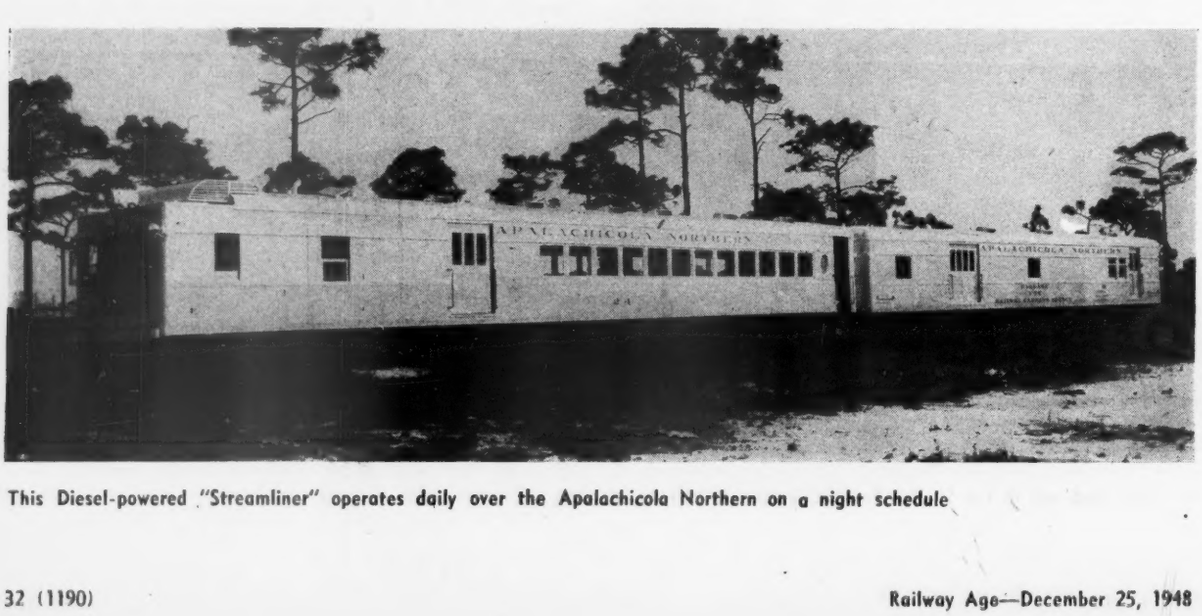
Long Trestle Rebuilt

There are 35,000 lin. ft. of bridge and trestle structures on this 99-mi. line. In addition to the five-mile structure, these include 9 bridges from 12 to 30 ft. in height and from 150 to 450 ft. in length, as well as 15 smaller structures. All of these bridges were rebuilt, new piles being driven where necessary.

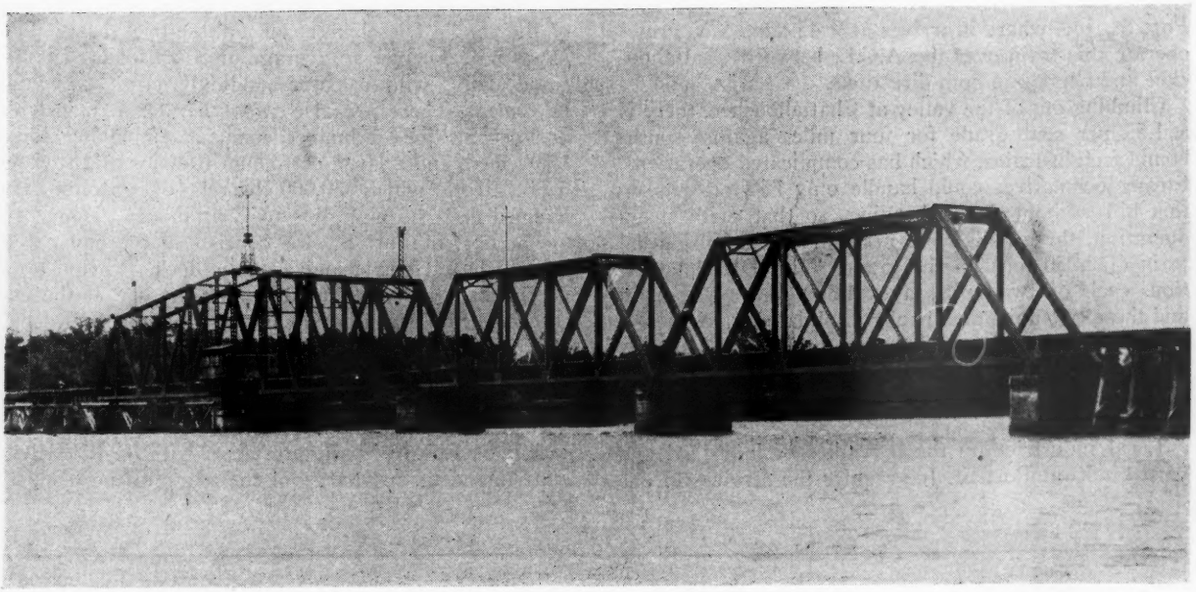
One of the first tasks, and by far the largest, facing the new management was the rebuilding of the long bridge and trestle structure across the delta of the Apalachicola river. When the line was originally built in 1905-6, the bents in this structure were spaced on 16-ft. centers. This light construction had been strengthened in 1917-18 by driving intermediate bents —on 8-ft. centers—but by the time the new owners took over, the entire structure had deteriorated badly.

As rebuilt, the structure contains 1,986 bents and six steel spans, the latter all on concrete piers. One group of three steel spans, with a combined length of 275 ft., includes a swing span. The other three steel spans, which are located within a few hundred yards of the drawbridge, have a combined length of 250 ft. Except for these steel spans, the entire structure is constructed of timber.

The original bents were driven with yellow pine piles in lengths ranging from 65 ft. to 150 ft. Above the water level considerable decay was evident in the piles, but inspection showed that most of them were just as sound below the water level as when driven. Accordingly, where the piles in a bent were sound, they were cut off below the water level and were topped with new frame bents, and the deck was rebuilt with new creosoted caps, stringers and ties. Where the old piles were decayed or otherwise weakened below the water line, new pile bents were driven. At the same time, seven miles of track over the bridge and on its approaches were relaid with new 90-lb. rail on new tie plates.



This Diesel-powered "Streamliner" operates daily over the Apalachicola Northern on a night schedule



The three-span bridge, with its drawspan, over the main channel of the Apalachicola river

In rebuilding this structure, the following quantities of materials, among others, were used: 4,000 12-in. by 12-in. by 14-ft. timbers (672,000 ft. b.m.); 2,000 12-in. by 12-in. by 16-ft. timbers (384,000 ft. b.m.); 487,872 ft. b.m. of bridge ties; 65,000 lin. ft. of 65-ft. piles; 768,000 ft. b.m. of 8-in. by 14-in. by 16-ft. stringers; 120,000 ft. b.m. of 6-in. by 8-in. by 17-ft. guard rails; and 256,000 ft. b.m. of 3-in. by 8-in. bracing material.

Bunch Section Gangs in Rail Work

All of the work was done by company forces, augmented by additional labor from Apalachicola. Since the bridge is near Apalachicola, it was not necessary to establish camps or to provide camp cars for the bridge workmen. As all trains of the A. N. are run at night, there was minimum interference with either train movements or the construction work on the bridge. Insofar as possible, each day's work was completed during the daylight hours, so that the bridge might be available at night for train movements. The entire work extended over a period of about 14 months.

Since all freight and passenger trains on the A. N. are operated at night, the relaying of rail has also been accomplished with no interference either to train movements or to the rail gangs. The procedure followed has been simple, yet effective under the circumstances. When the rail and fastenings have been distributed along the track, the foremen whose section is involved, plus the foreman whose territories adjoin at each end, with their gangs (usually five men each), are assembled into a rail-laying gang. The old rail is not taken up for any greater distance than can be relaid, tie-plated and fastened down within a day.

Through experience the roadmaster is able to assign the various rail-laying operations to the consolidated section gangs in a manner which will produce the best results and, at the end of each day, a considerable distance of new rail has been laid and spiked, and is ready for the night train movements. The next day the same procedure is repeated. Then, as a section is completed, one section gang returns to its regular duties and the next nearest section gang joins the rail-laying gang. In this manner all members of the rail-laying gang return to their homes, only a short distance away, each night, and there is no necessity for expensive camp operations.

In general, the A.N. parallels the Apalachicola river at some distance east of it and on high ground. After crossing the delta on the long bridge, however, a stretch of seven miles of track westward toward Port St. Joe was subject to inundation by the so-called "back streams" forming part of the delta. Using much the same type of gang organization as was used in laying rail, the grade throughout this entire area was raised, which involved the placing of approximately 80,000 cu. yd. of filling material.

Revised and Improved Operations

The rebuilding of the line immediately permitted more efficient operations with the steam power formerly used. However, since the purchase of four Electro-Motive Diesel-electric freight locomotives—of the road-switcher type—in October, 1947, still more efficient operations have been possible.

A 250-hp. Diesel-electric passenger power unit completes the Dieselization of this road. The "Streamliner," shown in one of the illustrations, consists of a power car, in which baggage as well as passengers are handled, and a trailer car for express and mail. This train leaves Port St. Joe at 8 p.m., makes connections at Chattahoochee with Louisville & Nashville and Seaboard Air Line trains, then proceeds 30 mi. further over the Atlantic Coast Line to Climax, Ga., where other important connections are made. It returns to Chattahoochee after a short lay-over, then to

Port St. Joe, where it arrives at 9:45 a.m. A.N. crews operate this train over the A.C.L. between Chattahoochee and Climax in both directions.

Climbing out of the valley at Chattahoochee, there is a 1.53 per cent grade for four miles against southbound freight trains, which has complicated operations. Steam locomotives could handle only 750-ton cuts up this hill without double-heading, so that, with steam operation, three pulls were necessary to get the usual train of 2,250 tons up the grade. With Diesel operation, each of two units takes 1,300 tons up the hill and these two units then haul consolidated trains, sometimes with more than 3,800 tons, to Port St. Joe. As the operation works out, two Diesels on this section of line now do the work formerly requiring four steam locomotives.

Local industries on the ten miles of industrial and yard tracks at Port St. Joe require the services of one of the road's Diesel units on a three-trick basis. The paper mill receives an average of 50 carloads of pulpwood daily, with a correspondingly large outbound movement. There are also two other large industries at Port St. Joe—a lumber company employing some 1,500 men, and a large petroleum transfer and storage depot, from which 30,000 barrels of gasoline are pumped daily by piple line to Chattanooga, Tenn.

The port of Port St. Joe consists of the paper mill wharf, the oil wharf and a public dock. Previously, a depth of 29 ft. was available over the bar at the entrance to St. Joseph bay, with the same depth at dockside, but this is now in the process of being deepened to 32 ft. at both locations.

The work of rebuilding the Apalachicola Northern was planned and carried out under the general supervision of Edward Ball, president, with J. L. Sharit, superintendent, in charge of the work in the field.

AIR DIFFUSION IN MODERN CARS

A discussion of the design principles of the Anemostat type of air diffuser for air-conditioned cars and the relation of these principles to service performance

By F. HONERKAMP
Chief Engineer, Anemostat Corporation of America

Streamliners adjusted the railroads to the tempo of modern times. Speed, and comforts you seldom find at home, became symbols of the new trains. One of these comforts was air conditioning.

In the beginning the mere cooling of air did not in itself afford the desired comfort. Forcing air through the neck of a duct down the neck of the passenger defeated the whole purpose of air conditioning.

In the early days cool air was discharged into the train through ordinary grills or registers. With these it was impossible to avoid drafts for upon leaving these air-duct openings incoming air swept to the floor, often violently. Until the velocity of the cold incoming air subsided it could not mix with the warmer air already in the train. This resulted in drafts. Temperature differentials were great, humidity was unequalized, and stuffy air-pockets were prevalent.

Mixing Process

Dividing modern passenger cars into small, private compartments and rooms of irregular shapes has tended to make uniform air distribution all the more difficult. The higher occupancy load in a comparatively small space further complicated the problem. Thus confined, with little or no body movement, passengers not only readily feel the slightest draft, but also the smallest difference in temperature and humidity.

If conditioned air could not de distributed in a uniform, draftless pattern, the money spent on the equipment back of the air duct—filters, heating and cooling coils, compressor equipment, humidifying and dehumidifying equipment, fans, automatic controls, duct work, and deodorizing equipment—was, to a large extent, wasted.

Obviously, what happened after the air left the air duct was what really mattered. The discovery of what happens and what to do about it gave air conditioning a permanent place in modern railroading.

Patented features enable the Anemostat, for example, to break the supply air stream into various air streams, expanding them within the device and transforming part of their velocity energy into pressure energy. Low-pressure areas are created in those parts of the passageways which are not impinged upon by the supply air, and room air from outside of the outlet is sucked into the device.

While discharging a multiplicity of planes traveling in all directions, this air diffuser at the same time creates an equal number of counter-currents of room air traveling toward the device. The mixture of primary and room air so discharged entrains additional room air which, due to the turbulence of discharged air, is readily drawn into and mixed with the discharged air. This phenomenon is called aspiration.

Take a lounge car, for example. Specifications for

such cars call for Anemostats to be centered at the ceiling 7 ft. apart; for 21 air changes per hour; for the volume of air to be distributed at the rate of 175 cu. ft. per min.; for the temperature of air supplied to be 60 deg. F.; for the temperature of the car to be 75 deg. F.; and the width of the car to be 9 ft.

What happens to the supply air after it reaches the neck of the duct and enters the Anemostat? We shall take just one cone, for the same principle applies to all of them.

The supply air at high velocity, in this case 1,300 ft. per min., leaves the duct and hugs the upper side of the cone, creating a high-pressure area. This leaves a low-pressure area along the under side of the cone. Into this area from below now slips thoroughly conditioned room air which has already traveled slowly through this specific car area in millions of leisurely motions As this air moves upward through the low-pressure area it finally comes to the end of this area at slightly below the point where the high-pressure area is formed. Here about a third of the air moving through the low-pressure area curls over into the high-pressure area and moves downward as an integral part of the incoming air stream.

The now thoroughly pre-mixed air arrives at the lower extremity of the Anemostat. The peculiar shape of the device discharges this pre-mixed air in all directions toward the periphery of the arc this device serves. We shall take that slice of the area covered going straight to the sides of the car.

The velocity of the pre-mixed air already greatly reduced, its temperature and humidity already equalized, it moves off to either side in fine layers of small circlets. In this case it leaves the Anemostat at about 8 ft. above the floor. As the air moves out, the circlets gradually become larger and slowly circulate downward.

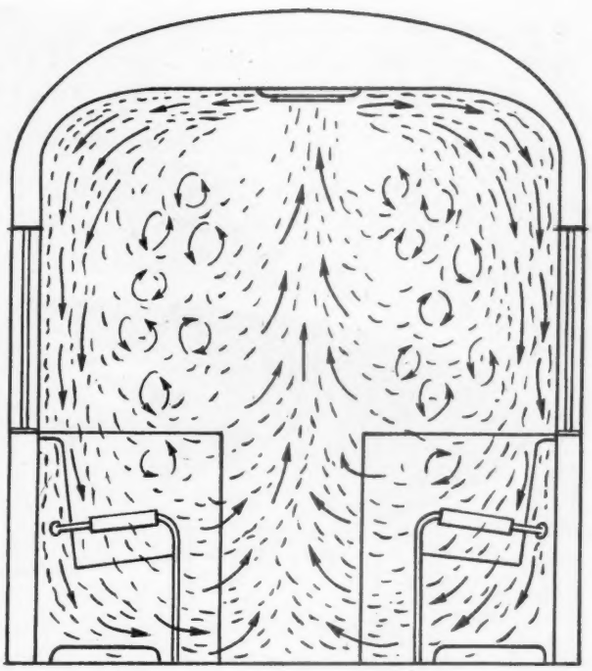
No Drafts

In the cross-section the general uniformity of low-velocity air at every point in the occupancy zone may be observed. This uniform pattern results from aspiration. Earlier we observed this principle in practice as it goes on inside the cones. Now we shall follow it in what is called the stratum of external induction directly underneath the air diffuser down to the floor.

The thoroughly pre-mixed air leaves the lower extremity of the air diffuser and moves out in small circles to left and right of the Anemostat. The ones on the left move counter-clockwise, the ones on the right clockwise, all in millions of convolutions. Slowly moving downward on each side, they become larger as they descend, and converge at the center in the stratum of internal induction.

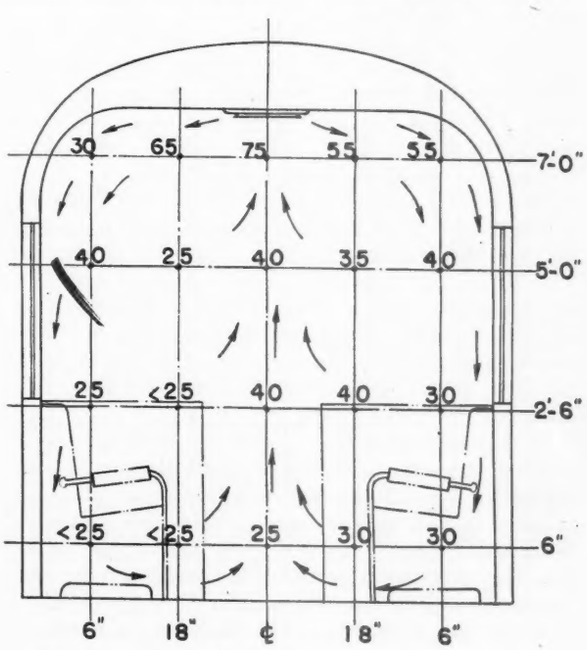
The circles from the left side moving counter-clockwise hook in with the circles from the right side moving clockwise and slowly move upward toward the air diffuser. The movement slowly gains momentum as it rises. But not until it reaches a point underneath the diffuser does it reach a state of turbulence. This is well above the occupancy level of the lounge car.

Because the primary air-mixing action takes place within the diffuser and because all major air-turbulence is limited to the immediate vicinity below the device, there are no drafts. The overall result is equally diffused air at every degree of the arc served. The low-velocity, controlled pattern of the incoming air promptly equalizes both temperature and humidity throughout the lounge car. Stagnant air pockets and air stratification are eliminated, and evaporation auras around human bodies are dissipated.

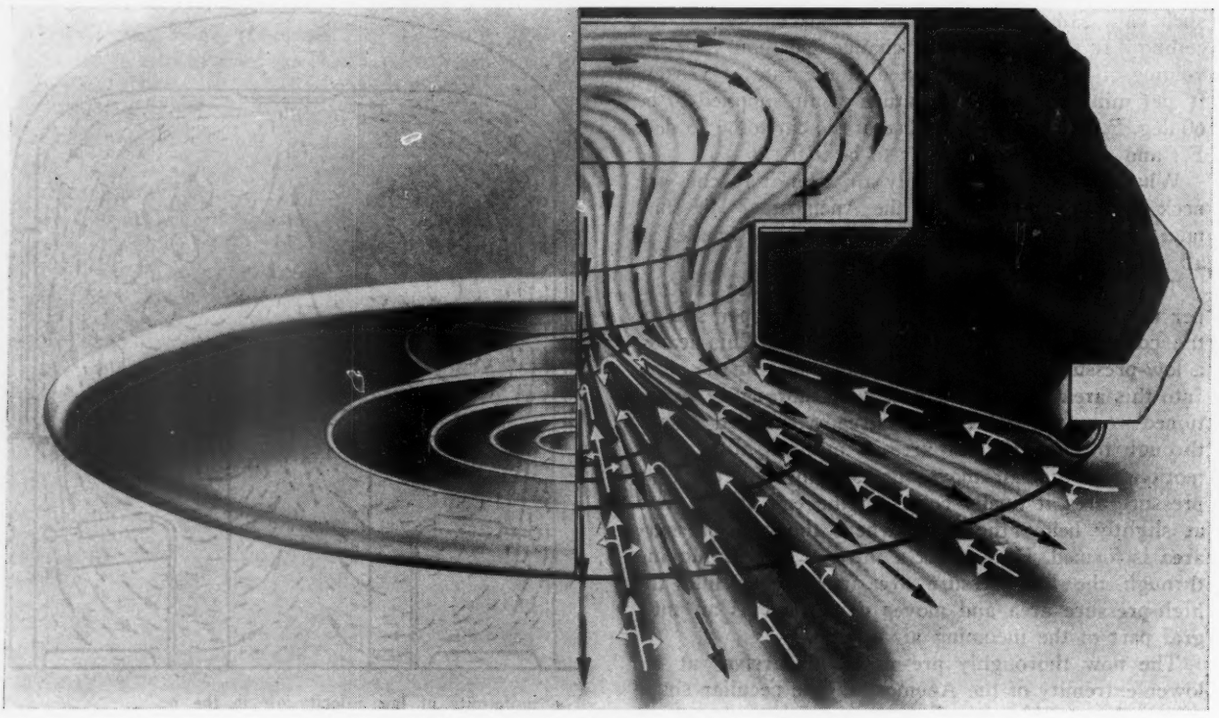


The uniformity of low velocity air in the occupancy zone of the car is shown by this diagram

The presence of such solid objects as chairs and tables does not significantly affect the general be-



Solid objects such as chairs do not affect the behavior of air layers to any great extent



The metal cones of the Anemostat are designed so that the passage of incoming air (black arrows) through them siphons a series of counter-currents of room air (white arrows) back into the cones. Simultaneously, air expansion within the cones reduces the incoming air velocity. In this way the air supply is pre-mixed with about a third of its volume of room air within the diffuser before the mixture is spread throughout the room in a draftless pattern

havior of the air layers. The air layers seek any opening to keep on their leisurely way. When obstructed they take the nearest course, slide down the side of the barrier, spread out, and ultimately enter the stratum of aspiration.

Only recently came an advanced type diffuser that produces any desired air flow pattern, from draftless diffusion to downward projection, at the turn of a knob. The Type C-1 Anemostat insures adaptation to any particular condition, whether it be for cooling, heating or ventilating in any combination.

The control mechanism varies the vertical position of the third cone of this diffuser provides different air flow patterns without affecting air-resistance. The ease with which the inner cone assembly is removed also saves time in balancing the system, and direct cubic-feet-per-minute readings can easily be taken. While incorporating the air diffusion and aspiration principle of all Anemostat air diffusers, this new type saves two-thirds of the installation time.

In the Anemostat laboratories are 36 small enclosures called mock-ups representing all the possible conditions the air diffusers will be called upon to meet in railroad cars. After the exact specifications of the order are analyzed, they are duplicated in the mock-ups. The same duct approaches are made, and the same range of temperature differentials (Chicago to Miami in winter, for instance) are created for the particular unit of space to be served. Tests are run and the Anemostats are finally adjusted in fixed position to take care of any condition. No unit leaves the laboratories until it has been thoroughly tested for a particular unit of space.

The Type C-1 Anemostat makes possible substantial savings in cleaning and maintenance work. Nothing is more necessary or more costly than the periodical cleaning of duct work. The quick push-button and twist removal of the inner assembly gives immediate access to duct work. Also, when the ducts are used to accommodate electrical conduits, this type permits quick and easy entry for repair.

The future of the railroad industry is political. Our rates are set by government; our wages are largely set by government. When our labor unions don't agree to what they receive through negotiation or through Presidential fact-finding boards, they dump the problem in the lap of the President of the United States and many times in the last few years the President has given them more than the railroads felt they could afford, thereby breaking down the Railway Labor Act.

Our taxes are in the hands of the politicians. The question of subsidies is purely political. Railroad managements, as such, have little political influence; our stockholders have some; but you, the users of railroad transportation throughout the length and breadth of the country, are going to be the deciding factor. If you want your railroads to be taken over by the government, they will be. If you do nothing about it as England did nothing, that's what will happen to them. If you want them to be continued as privately owned and privately managed, they will be. It's up to you!

—R. E. Woodruff, president, Erie, in an address to the American Hardware Manufacturers Association.

1949 EXPENDITURES WILL START 39 PER CENT ABOVE '48

First-quarter capital outlays will be on that level, according to carrier estimates reported in I.C.C. "Monthly Comment" — Wage-data analysis shows 1947 pay of freight engineers above that of division officers

After making 1948 capital expenditures of $1,251 million, an increase of 47.7 per cent above 1947's $847 million, the Class I railroads plan to get their 1949 programs under way with first-quarter expenditures 39 per cent above those of this year's first three months —$364 million as compared with $262 million. This was shown by estimates submitted by the roads to the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission and published by the bureau in the latest issue of its "Monthly Comment."

The "Comment" also contains an analysis of salary data which shows that the average 1947 pay of road freight engineers in local and way service, based on the mid-month count of employees, exceeded that of division officers and staff assistants, the figures being $6,152 and $5,774, respectively. Other articles deal with the coverage of fixed charges by railroads in 1940 and 1948; the latest available freight commodity statistics; recently issued waybill studies relating to bituminous coal traffic and revenue; and the correlation between railway ton-miles, on the one hand, and private non-agricultural employment and the average length of the work week in manufacturing industry, on the other.

Planned First-Quarter Expenditures

The $364 million which the Class I roads plan to spend on capital improvements during 1949's first quarter includes $293 million, or 80.5 per cent of the total, for equipment and $71 million, or 19.5 per cent, for road facilities. The $262 million spent in this year's first quarter included $203 million, or 77.5 per cent, for equipment and $59 million, or 22.5 per cent, for road.

The figures of $1,251 million for this year's total expenditures was built up by adding the actual expenditures of $872.2 million for the first nine months to the $378.4 million which the carrier estimates indicated would be spent during the last quarter. On that basis, the $1,251 million would include $920 million, or 73.5 per cent, for equipment and $331 million, or 26.5 per cent, for road. The 1947 expenditures of $847 million included $561 million, or 66.3 per cent, for equipment and $286 million, or 33.7 per cent, for road.

The $872 million spent during this year's first nine months included $631 million, or 72.4 per cent, for equipment and $241 million, or 27.6 per cent, for road. As set out in the estimates, the distribution of the $378 million to be spent in the last quarter was $288 million, or 76.2 per cent, for equipment and $90 million, or 23.8 per cent, for road.

The analysis of salary data included some discussion of the figures published in the bureau's recently-issued statement (No. 4844) showing by titles the salaries of individual railroad officers whose annual rate of compensation was $10,000 or more as of December 31, 1947. However, it also presented data not in that statement, including the comparisons of executive salaries with those of locomotive engineers. Those comparisons, including that mentioned above, are shown in the accompanying table.

Class I Line-Haul Steam Railways
Year — 1947

Reporting division	Average number of employees Middle of month	Received pay during month	Total compensation	Average compensation per employee Middle of month	Receiving pay
Executives, gen. officers, & ass'ts.	6,767	6,788	$61,378,650	$9,070	$9,042
Div. officers, ass'ts., & staff ass'ts.	8,427	8,590	48,660,991	5,774	5,665
Totals and averages .	15,194	15,378	110,039,641	7,242	7,156
Road Pass. Engineers .	9,534	10,315	51,401,562	5,391	4,983
" Freight " (through freight) ...	19,650	21,140	92,008,409	4,682	4,352
Road Freight Engineers (local and way)	8,184	9,226	50,350,601	6,152	5,457
Total and averages ..	37,368	40,681	193,760,572	5,185	4,763

The bureau's comment on these figures included the following: "In terms of the mid-month count the annual compensation of local and way engineers averaged 67.8 per cent of that shown for the top executive group and exceeded by $378 per annum the average compensation of division officers, assistants and staff assistants. In terms of the total number receiving pay, local and way engineers averaged 60 per cent of the average annual compensation of the top executive group and 96 per cent of that for the division officer group. For through freight engineers, whose compensation was the lowest of the three engineer groups, the annual average compensation was 48 and 77 per cent of that for the top executive group and the lower paid executive group, respectively. Combining the two executive groups and also the three engineer groups, the latter combination averaged 72 per cent of the former in 1947 in terms of the average mid-month count and 67 per cent on the basis of the total number receiving pay, as to average annual compensation."

Executives Lag Behind on Raises

Another comparison included in the analysis was that of changes between 1940 and 1947 in the average annual wages or salaries of selected groups of employees. That comparison included index numbers, based on 1940 as 100; and the salary figures for each year were based on the average of 12-mid-month counts of employees and total compensation paid. It showed that the average 1947 salary of all executives, officials and staff assistants was $7,242, an increase of 24 per cent above the $5,827 shown for 1940. The average

for executives receiving $10,000 or more was up only 1 per cent, from 1940's $17,297 to 1947's $17,470. Meanwhile the average annual salary of "all other employees" rose 70 per cent — from $1,867 for 1940 to $3,173 for 1947.

The article on fixed charges showed for Class I roads, by districts and regions, and for 35 large roads (those with 1947 operating revenues above $50 million), the income available for fixed charges, the fixed charges, and the coverage of the latter by the former during the first nine months of 1940 and 1948. For the roads as a whole the available income increased from $529.1 million in the 1940 period to $851.8 million in 1948, or 61 per cent, while the fixed charges declined 30.7 per cent, from $459.3 million to $318.2 million. As a result, ratio of income to fixed charges in the 1948 period was 2.68, as compared with 1.15 in 1940.

Railroads in the Southern region and Western district did not cover fixed charges in the 1940 period, their ratios having been 0.96 and 0.89, respectively. The comparable figures for the 1948 period were 2.91 and 3.36. Meanwhile, the coverage of the Eastern-district roads rose from 1.18 to 1.88, while that of the Pocahontas-region lines went up from 5.52 to 7.19.

Coverage of Charges by Large Roads

The similar data for 35 large roads showed that, in the 1940 period, only two of them (Norfolk & Western and Chesapeake & Ohio) had ratios above 2.00, while 18 failed to cover their fixed charges. In the 1948 period, all 35 covered their fixed charges, and only 6 had ratios of less than 2.00. The latter were the Pennsylvania, New York Central, Baltimore & Ohio, Lehigh Valley, Northern Pacific, and Missouri Pacific. The 1948 ratio ranged from the N.Y.C.'s 1.41 to the N.&W.'s 21.2. The latter was also on top in the 1940 period with a ratio of 15.69. The C.&O. was then in second place with a ratio of 3.96; it was in twelfth place in the 1948 period with a ratio of 4.49.

"As would be expected," the bureau said, "the improvement in the ratios was particularly striking in the case of those carriers which have been reorganized since 1940. In this group the [1948] ratios of coverage of fixed charges ranged from 2.27 for the New Haven to 13.59 for the Rock Island." The latter was second on the 1948 list, while the Union Pacific and Atchison, Topeka & Santa Fe were in third and fourth places, respectively, with ratios of 11.85 and 10.62.

In the article on freight commodity statistics, the bureau compared the figures for this year's first half with those of the like 1940 period. The comparison showed generally that the distribution between the major commodity groups of tons originated on Class I roads in the 1948 period was "approximately the same" as in 1940's first half; but the pattern of gross revenue distribution showed a "much wider variation." The latter was attributed to a "combination of factors, particularly changes in lengths of haul and increases in freight rates which varied among both commodities and commodity groups."

The waybill studies discussed in the "Comment" were Statements Nos. 4845 and 4846, issued recently by the bureau. The former showed the state-to-state distribution of bituminous coal traffic and revenue for 1947 and each of its four quarters, and the latter gave the distribution of the coal traffic and revenue averages by rate territories for the same periods. The bureau presented selected data from these statements as a basis for these conclusions:

"The average revenues for the 69,383 carloads included in the sample were 47 cents per short-line car-mile, and 0.82 cents per short-line ton-mile. The average short-line length of haul per ton was 298 miles and the average load 57 tons per car. About 90 per cent of this coal traffic originated in Official and Southern territories and all but a small fraction of these originations terminated there. The terminations included deliveries to tidewater and lake ports for water movements to be followed by further rail hauls. Official territory accounts for 76 per cent and Southern territory for 14 per cent of the total originations. Although 98 per cent of the Official-territory originations also terminated there, only 59 per cent of Southern originations were terminated in the South. Practically all the remainder, or 38 per cent, of southern originations terminated in Official territory."

Employment Factors and Ton-Miles

The correlation between railroad ton-miles, on the one hand, and private non-agricultural employment and the average length of the work week in manufacturing industry, on the other, was shown on a chart with curves comparing "computed" ton-miles with actual ton-miles for the 1929-47 period. The "computed" ton-mile figures were based on relationships of the employment factors and the actual ton-miles during the 1929-41 and 1946-47 periods, the distorted showing of the war period having been eliminated. Attention was called to the fact that, in 15 out of the 18 years since 1929, plus and minus changes in employment were associated with changes in the same direction in ton-miles, and in 14 years the hours per week are similarly associated with ton-miles. In 12 of the 18 years the direction of change was found to have been the same for all three series.

"The chart implies," the article continued, "that revenue ton-miles are highly dependent upon employment as reflected by both the level of employment and the length of the work week, but especially the former. If past relationships persist, a decline of 10 per cent in employment may be expected to be accompanied by a decline of about 17 per cent in revenue ton-miles. Vice versa, a 10 per cent increase in employment would be associated with a rise in ton-miles of about 17 per cent.

"For relatively short peacetime forecasts the given relationships between these three elements may be fairly satisfactory for approximating revenue ton-miles on the foregoing assumption, namely, that rising national productivity will be counterbalanced by the increase in competition of non-rail transport agencies or other factors . . . However, for estimates other than relatively short term, it will be hazardous to assume that these opposing forces will so exactly offset each other. Even for short-range estimates unusual changes in the competitive rate levels or costs of transport among the various transportation agencies might destroy the balance which has apparently existed in the peacetime years since 1929."

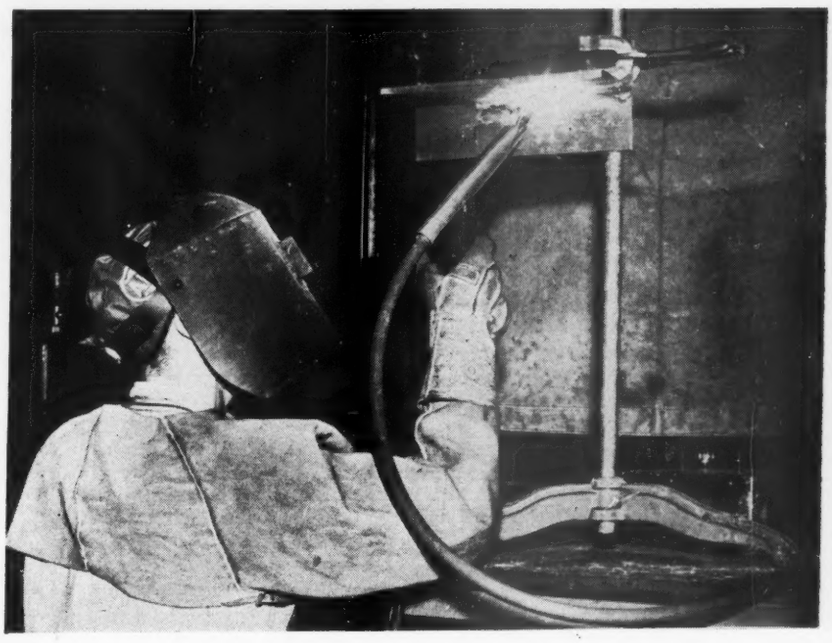
NEW AND IMPROVED PRODUCTS OF THE MANUFACTURERS

GAS-SHIELDED WELDING PROCESS

The Air Reduction Sales Company used its exhibit at the National Metal Show (October 25-29) in Philadelphia, Pa., to introduce to industry a new welding process. A product of the company's research laboratory, this new method will be known as the Aircomatic process. It may be used for welding heavy sections of aluminum and aluminum alloys at wire feed speeds ranging from 100 to 300 in. per minute.

Essentially this process is a form of gas-shielded, metal-arc welding but the conventional nonconsumable electrode has been replaced by a continuously fed, consumable wire. This wire is fed to the work through the barrel of a welding "gun" which resembles an automatic pistol. The filler metal carries welding current and an arc is maintained between the end of the wire and the work. Power is supplied from a standard d.c. welding generator and argon is used as the shielding gas.

According to the manufacturer, these units are now coming off the production line and will be generally available around the end of this year. The application of the process to metals other than aluminum is now under development.



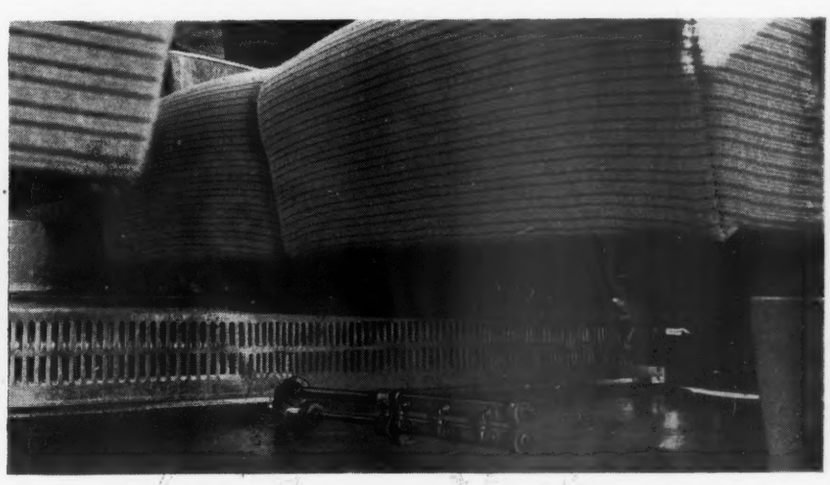
Welding aluminum by the Aircomatic process

EXTERNALLY CONNECTED INSECTICIDE VAPORIZER

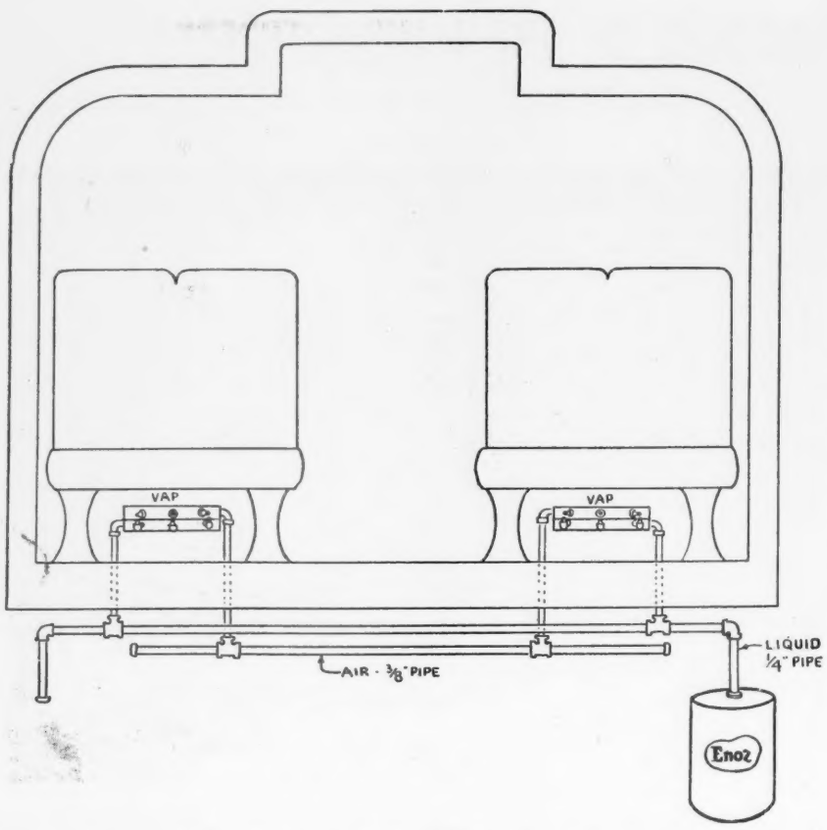
Workmen no longer need to enter Monon passenger cars to spray insecticide since the installation of Enoz permanent railroad vaporizing equipment, manufactured by the Diversey Corporation, 53 West Jackson boulevard, Chicago 4. The vaporizers are permanently mounted on the inside of the car where they are not visible to the passengers, and are connected to a pipeline which extends to the outside center area of the car. To spray the car, a container of insecticide is attached to the liquid line and an air hose connected to an air line. With the car closed up the air is turned on and the car completely treated within a few minutes.

The heavy vapors of the insecticide travel the entire length of the car along the heating pipes, on each side, and on the floor where insect infestation is usually the heaviest. The lighter vapor rises so that complete fogging of every area of the car is accomplished with little or no wetness and condensation.

The two permanent vaporizers used in coaches are located in the approximate center of seats on both sides of the middle of the car. In the dining and dining-parlor cars the vaporizers are installed on the walls of the pantry and kitchen. These vaporizers are most effective in the pantry and kitchen area but are of sufficient capacity to fill the entire car with the insecticide. The exterior piping which feeds the insecticide to the permanent vaporizers comprises one length of ¼-in. pipe for the liquid and one length of ⅜-in. pipe for the



On coaches the vaporizers are located under the seats out of sight of the passengers



The Enoz externally connected system of insecticide spraying is applicable to new or old passenger cars of all types

compressed air. The flow of air in the latter creates a vacuum which fogs the liquid and carries it through the first pipe into the car.

The exterior connections are capable of supplying the interior of the car with a quart of vaporized insecticide in about two minutes. The entire operation, including making and breaking the connections and spraying interior, requires about ten minutes.

PACKAGED POWER FOR CABOOSES

The R. H. Sheppard Company, Hanover, Pa., has announced a packaged unit which features its model 14, 1-cylinder air-cooled Diesel engine connected to a 2,000-watt generating set. The new unit is designed as a generator set for railroad caboose communications and work car power supply. The engine and generator are mounted on vibration isolators and a common base of ½-in. steel plate; the entire unit is housed in a heat-proof and sound-proof enclosure which measures 22 in. wide, 38 in. deep and 39½ in. high. The unit is available as an alternating current generator or a battery charging set. The width has been held to 22 in. so that the unit will pass through the door of a caboose. The length, 38 in., should permit its placement without its encroaching on the aisle space. The height allows it to be set below a window.

All cooling ducts are built into the unit, and a crankshaft ventilating fan is provided so that the unit may be set against an opening in the side of the car 18 in. wide and 38 in. high. This one opening serves both the intake and exhaust apertures in the unit.

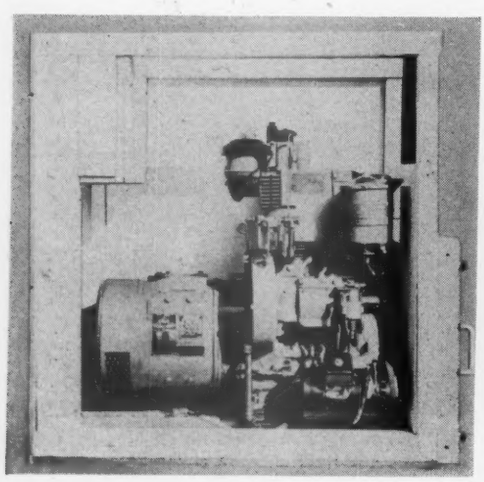
An inlet air filter to keep the engine clean, and the louvered section may be mounted either on the unit or on the outside of the car.

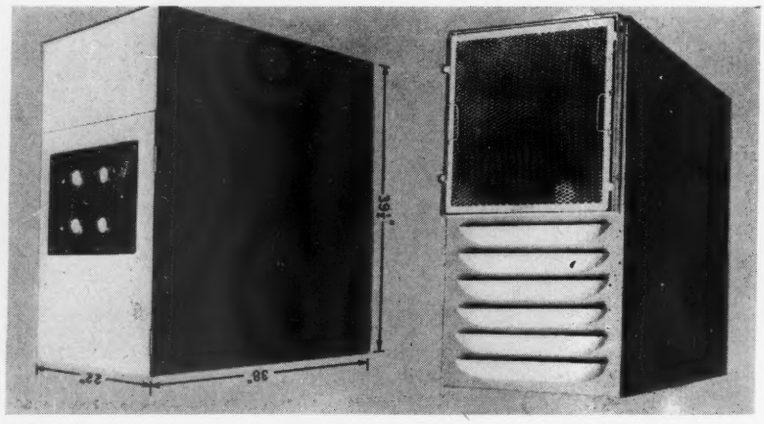
The exhaust muffler has a connection for piping either to the roof or under the car. Starting batteries are included in the enclosure. The engine is started and stopped by a toggle switch and starter button on the exterior of the instrument panel.

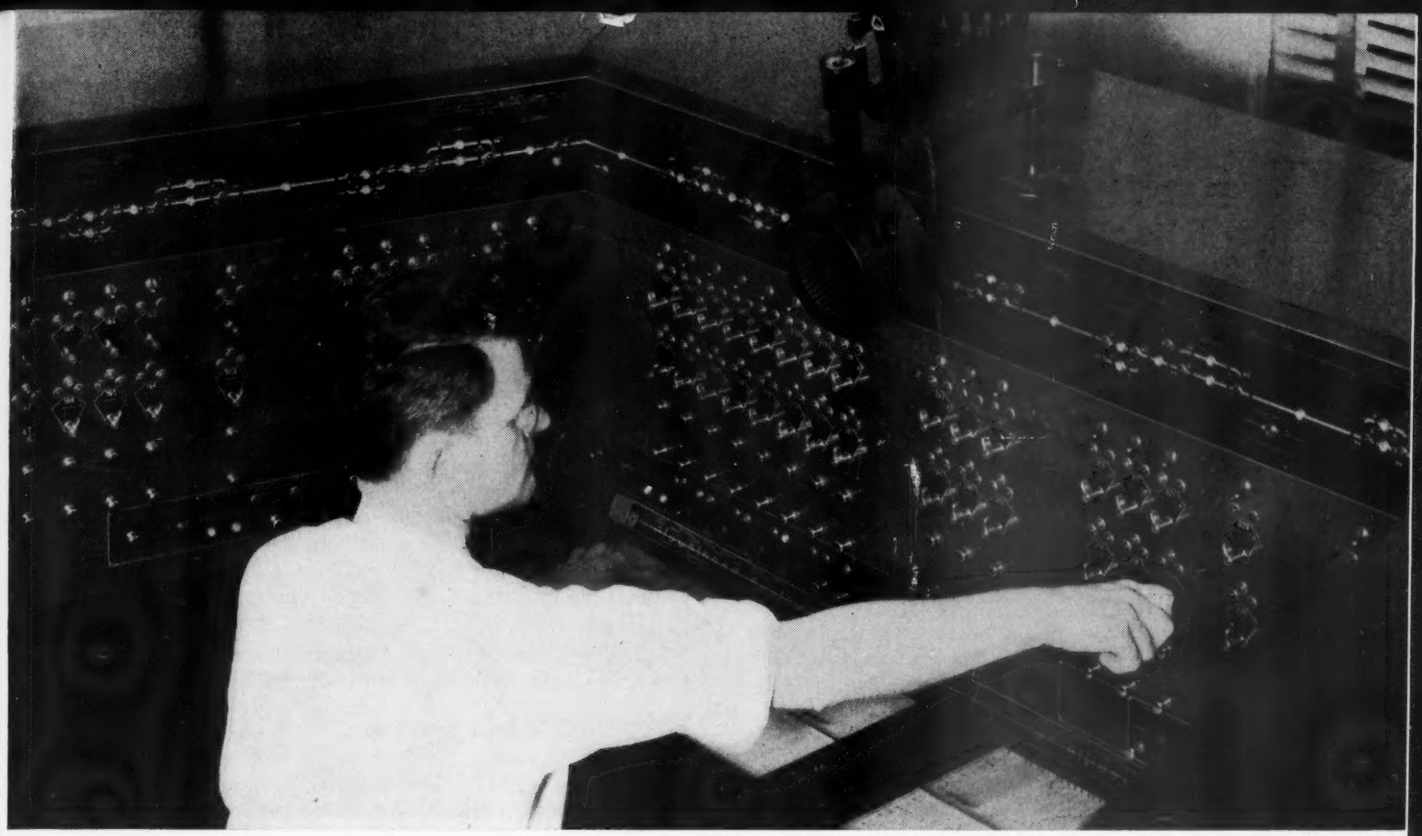
The instrument panel is mounted on the face of the unit. Power is available from receptacles, and power circuits are protected by circuit breakers. A hydraulic throttle provides protection from low lubricating oil pressure.

The top and front panels of the enclosure are hinged for easy access, and the side panels may be removed easily if required. There is an auxiliary ventilating fan mounted on the crankshaft to keep the interior of enclosure cool. An electric pump, with flexible fuel lines for filling the fuel tank, is available for mounting under the car.

Left—Arrangement of apparatus. Below—Front and rear views of the power unit housing







This machine in the dispatcher's office at Savannah controls the entire 248 mi. between Savannah and Hamlet

SIGNALING THAT NO WIND CAN HARM

Underground cable on 248-mi. Seaboard project obviates line wire circuits—Two aspect station-to-station signals, normally controlled by the dispatcher, are cut over to automatic block if his control fails

On 248 mi. of main line between Hamlet, N. C., and Savannah, Ga., the Seaboard Air Line has installed a signaling system which, in two respects, is the first of its kind. One new feature is that the control between the dispatcher's office and the power switches and signals at sidings is transmitted on wires in a two-conductor buried cable which is immune to wind storms. A second novel feature is that if this control from the dispatcher's office should fail, the system automatically changes over to a form of station-to-station automatic block signaling, in which, at each siding, an approaching train will automatically "approach clear" the signals for its direction of traffic. When operating under the control of the dispatcher or as automatic block, the blocks are from siding to siding, with no provision for following trains, thus requiring no intermediate signals, except those used also as distant signals for station-entering signals.

This line from Hamlet to Savannah, via Columbia, S. C., is the most direct of two Seaboard single-track lines between these cities, but it includes several heavy grades. A second line, via Charleston, S. C., is 14.5 mi. longer, but is at low grade on the costal plains. Accordingly, through passenger trains are operated

View showing the signaling arrangement at the north end of the power-operated siding at Garnett

Map of C.T.C. territory between Hamlet, N. C., and Savannah, Ga.

via Columbia, and through freights via Charleston.

On the line via Columbia, the year-around passenger trains include the "Sunland," the "Silver Meteor," the "Silver Star," the "Palmland" and an express train daily. In the winter season, December to May, additional passenger trains include the "Orange Blossom" and other trains, making a total of seven passenger trains each way daily. A local freight is operated each way daily also, and, on some occasions, perishable pick-up and extra freights are run over this line. Thus the total number of trains daily may vary from about 14 to 24 or more.

On the 146 mi. south from Hamlet to a curve 2 mi. north of Waynor, the railroad runs through hilly country with rolling grades, ranging up to one per cent. Curves are numerous and range up to four deg. On account of the grades and curves, train speeds are limited at numerous places. South from Waynor, the railroad runs through open country where the line is more nearly straight and level. For example, the track is tangent for 25 mi. between Fairfax, S. C., and Garnett. Accordingly, the 100 mi. between Waynor and Savannah is high-speed territory, the maximum permissible speed being 75 m.p.h. for modern streamlined passenger trains hauled by Diesel-electric locomotives, and 70 m.p.h. for passenger trains of conventional equipment hauled by steam locomotives.

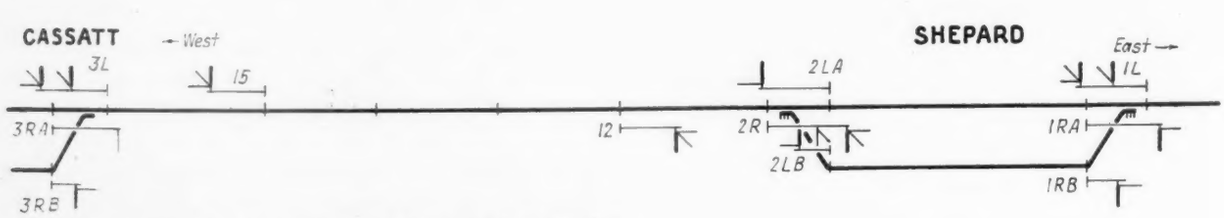
Previously there were 50 sidings between Hamlet and Savannah. Based on experience with earlier installations on the Seaboard, it was decided that 13 of these sidings would not be needed for the meeting and passing of trains after the new signaling was installed. Accordingly, three sidings, at Fulton, S. C., Hyatts and Exley, were retired. Ten other sidings, now used only as house tracks, were left in place, the hand-throw switches being equipped with locks. These tracks are at Kimberly, S. C., McBee, Bethune, Pontiac, Cayce, North, Denmark, Schofield, Sycamore and Scotia. Thus, of the original 50 sidings, only 37 were equipped with power switch machines and signals.

A Block Signal System

Previously, train movements in this territory were authorized by time table, train orders and manual block, no automatic block signaling being in service. The new system of signaling was planned primarily to meet the need for track-circuit-controlled signal protection. The station-leaving signals operate to two positions, and govern from siding to siding. Therefore, in this respect, the system is the equivalent of track-circuit-controlled absolute manual block. The power switch machines and signals at the sidings are ordinarily controlled by coded line equipment from a control machine in the dispatcher's office at Savannah. The aspects of these signals, when controlled by the dispatcher, authorize trains, in the conventional manner, to: (1) continue on the main track; (2) enter the sidings; or (3) leave the siding and go to the next power-equipped siding. In this respect the system is similar to centralized traffic control.

The typical layout of signals is shown in Fig. 2. The station-leaving signal, such as signal 2LA at Shepard, S. C., displays red for Stop, or green for Clear. Similarly, with the switch reversed, the leave-siding dwarf 2LB displays green for Clear. The Clear aspect on either 2LA or 2LB authorizes a train to proceed to Cassatt, S. C. The block is from station-to-station, with no provision for a second westward train to enter the block until first one has gone beyond signal 3RA at Cassatt. Thus, no yellow aspect is needed on signals such as 2LA and 2LB.

The station-entering signals, such as signal 2R at Shepard, display an aspect of green-over-red as Clear, if the station-leaving signal 1RA has been cleared; or signal 2R displays the yellow-over-red as an Ap-



Typical arrangement of two-aspect, station-to-station signaling

proach if 1RA is indicating Stop. Also, if the siding switch is reversed, station-entering signal 2R can display the aspect red-over-yellow to authorize a train to enter the siding.

In order to give advance information concerning the aspects displayed by station-entering and leaving signals, distant signals are provided. For example, signal 15 is the distant signal in approach to station-entering signal 3L. When signal 3L displays green in the top arm, the distant signal 15 displays the green aspect. If station-entering signal 3L displays either the red-over-red or the red-over-yellow aspect, than distant signal 15 displays the yellow aspect. When a train occupies the track section between signals 3L and 15, signal 15 is set to display the red aspect.

In all instances the distance between a station-entering signal and its distant signal is more than train-stopping distance. The track circuits are the coded type, and one such circuit extends between each station-entering signal and its distant signal. As a general rule, therefore, the distance from a station-entering signal to its distant signal is about 9,000 ft. Thus, as applied to various station-to-station blocks, the remaining distance between the two distant signals would vary. For example, as shown in Fig. 3, the distance between the sidings at Lugoff, S. C., and Blaney is 8.7 mi. One distant signal is out 8,725 ft. and the other 9,125 ft. This leaves 4.6 mi. intervening between the two distant signals.

Change-Over to Automatic Block

The coded line control circuit from the dispatcher's office to the field stations is in a two-conductor buried cable for the entire 248 mi. If the circuit on this cable fails, the controls in the field are changed over automatically so that an approaching train will automatically "approach clear" the signals for its direction of traffic in each successive station block and each station-to-station block.

When the system is operating as automatic block, the power switch machines at the sidings are each controlled locally by trainmen. On the instrument house near each power switch is a small cast-iron controller case in which there is a panel with two key holes that fit standard switch padlock keys. To cause the switch to operate from normal to reverse, a key is placed in the "right" hole and turned clockwise. Or, to operate the switch from the reverse to the normal position, the key is used in the "left" hole.

A feature of this project is the two-conductor underground cable extending the entire 248 mi. This cable, which was made by the General Electric Company, has two No. 10 solid copper wires, each wire having a 3/16-in. thickness of polyethelene, and these insulated conductors are enclosed in an overall layer of Flamenol, 4/64 in. thick. The cable was buried 18 to 22 in. deep by a cable plow, which was pulled by a steel wire cable connected to a 12-in. steel I-beam, extending out from a flat car at the floor level. With favorable conditions, the cable was plowed in at a speed of about five m.p.h. About 60,900 ft. were laid in one day when the work train was out on the main line a total of 6 hr. 20 min.

The two wires in the 248 mi. of buried cables are used for telephone carrier as well as for the d.c. codes and carrier for centralized traffic control. Three-channel Western Electric Type-C carrier equipment, used primarily for telephone service, is designed for modulation of the channel frequency by voice frequencies. Therefore, the Union Switch & Signal Company carrier apparatus, employed for the transmission of C.T.C. codes, is in the voice range.

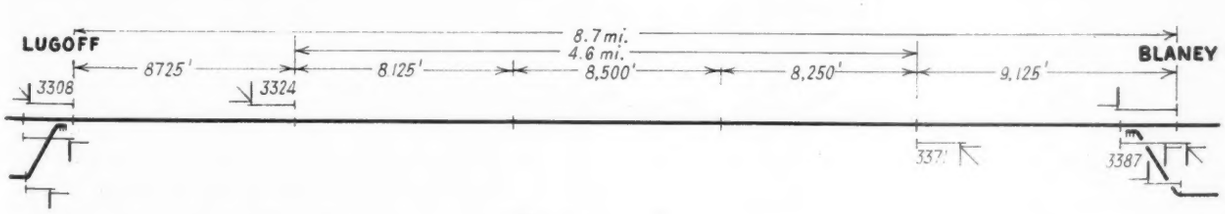
No Line Wires for A. C. Power

At the power switch locations storage batteries supply the energy to feed control circuits and operate the switch machines. These batteries are on floating charge from rectifiers which are fed from local commercial sources of a.c. At these locations, the storage batteries will keep the switches and signals in operation even if the commercial a.c. power fails.

However, the carrier equipment for C.T.C. line coding and for communications circuits requires a.c. power constantly. Accordingly, at the nine field stations which are also carrier repeater stations, an emergency standby source of a.c. was required. At each of these stations there is a small-size gasoline engine-driven generator, rated at 1,500 watts, 110 volts. If the incoming a.c. commercial power fails at any of these nine field stations, the gas-engine generator is started automatically and takes over the load quickly. These machines are the lightweight portable type made by Onan & Sons, Minneapolis, Minn.

On the sections of track between sidings the track circuits and distant signals are normally deenergized, being set in operation as a part of the controls when a line-up in a station-to-station block is being established under control of the dispatcher. Accordingly in the station-to-station blocks, the track circuits and signal are fed directly from primary battery and, therefore, no line wires are required for an a.c. power distribution circuit.

The installation was under the jurisdiction of J. R. DePriest, superintendent communications and signals, and J. E. Barker was general signal construction supervisor. The principal items of signaling equipment on this project were furnished by the Union Switch & Signal Company.



Typical spacing of distant signals in a station-to-station block

RECOMMENDS 40-HOUR WEEK FOR NON-OPERATING EMPLOYEES

Emergency board would make it effective September 1, 1949, meanwhile granting a 7-cents-per-hour wage increase; full-year cost about $640 million

Establishment for non-operating employees of a 40-hour week, effective September 1, 1949, and a wage increase of 7 cents per hour, retroactive to October 1 of this year, has been recommended by the emergency board which President Truman appointed to investigate the wage and rules dispute between those employees and railroad managements. The report was submitted to the President at the White House on December 17 by members of the board, who are Chairman William M. Leiserson and George A. Cook, both former chairmen of the National Mediation Board, and David L. Cole, former chairman of the New Jersey Mediation Board.

The recommended 40-hour week would involve maintenance of the present 48-hour pay basis, and would thus bring another increase of 20 per cent, or about 23½ cents, in hourly rates to add to the 7 cents called for in the report's wage recommendation. Meanwhile, however, the shorter work periods would be staggered 5-day weeks with two consecutive days off in each seven and no premium pay for Saturdays and Sundays as such; but overtime at time-and-one-half rates would be paid for work performed in excess of 8 hours in a day or 40 hours in a week.

$640 Million a Year

The board estimated that the cost of the 40-hour week provision in 1949, when it would be effective during the four closing months, would amount to about $150,000,000. This would indicate a full-year cost of about $450,000,000, to which would be added the cost of the 7-cent increase ($190,000,000) to make a total of $640,000,000. The latter is $380,000,000 more than the $260,000,000 which would have been involved in the management offer to extend to the "non-ops" the 10-cents-per-hour increase granted to operating employees, effective October 16. No full-year estimate was made by the board, which confined its specific figures to the prospective 1949 cost, putting it at $340,000,000, or $80,000,000 more than the carriers' 10-cents-per-hour offer.

As for the years after 1949, the report had this to say: "In subsequent years the full effect of the adjusted work week will be felt. It is believed, however, that in keeping with the experience of many years of increasing productivity and declining employment the industry will find the initial cost burden diminishing as time goes on." Later on the report expressed the board's feeling that "what it is recommending will not endanger the railroads financially," nor "put them competitively out of line with other transportation services."

The management representatives and union leaders were holding separate meetings in Chicago this week to consider the report. Acceptance of emergency-board recommendations by either party is not required by the Railway Labor Act; but the act does prohibit a strike or other action for 30 days after the date on which such a report is issued. The immediate reaction of the union leaders was one of "disappointment," they said. They had demanded a basic wage increase of 25 cents per hour and a Monday-through-Friday work week with premium overtime rates for work on Saturdays and Sundays. The carriers estimated that the annual cost of meeting this whole demand would be not less than $1,555 million and might run as high as $1,738 million.

Special Craft Problems

While the 7-cent-increase and 40-hour-week recommendations would apply to the great majority of employees involved in the proceeding, the board had what it called "special craft problems" to deal with in considering the situations of dining car employees, some of the employees in railroad marine services, and the yardmasters represented by the Railway Yardmasters of America. With respect to the latter, the board recommended the same 10 cents per hour increase, effective October 16, that was granted to yardmasters represented by the operating brotherhoods which settled on that basis. At the same time, the demand of the R.Y.A. members for a 40-hour week was rejected with this comment: "Unquestionably, if the yardmasters in our case get a reduced work week it will have to be extended to all yardmasters. This would then create another inequity because the others have already settled for 10 cents, without the 40 hours."

For dining-car employees, whose working hours are set up on a monthly basis, and employees in railroad marine services with like arrangements, the board suggested reductions in the basic monthly hours by "the equivalent of one working day less each week." For dining-car employees on most roads, this would mean a reduction of the maximum work month from 240 hours to 205 hours, with no change in the monthly wages. The board lacked information for a specific recommendation covering the marine-service employees, but it suggested that the adjustment there be "along the same general lines as in the case of the dining car employees."

These adjustments of working hours would be effective, like the proposed 40-hour week, on September 1, 1949, and the employees involved would meanwhile get the 7-cents-per-hour increase retroactive to October 1.

In connection with its 40-hour-week proposal, the board stipulated that the working rules should be modified to conform to that set-up; and "therefore, the employees are not to have the option of continuing former rules which they may regard as more favorable but which are inconsistent with this intent." Listed by the board "among the rules which will need revision" were those relating to the following matters: Amount of weekly and monthly guarantees; sick leave; vacations; relief days, including their extension to the crafts which do not now have them, and Saturday afternoon relief; punitive pay for Sundays as such; and apprenticeship time.

The board also suggested that there may be reasons for making changes in rules on: distribution of overtime; changing shifts; and starting time. Meanwhile, it found no reason for any change in rules dealing with the following matters: holiday pay provisions; deadheading, court attendance and similar matters, travel time, road work, meal periods, transfer time, and make-up time; split shifts or tricks; calls; standbys; basic day; and daily overtime.

The report occupied 78 double-spaced sheets. It got under way with a review of the controversy's history, noting there that the demands of the 16 non-operating unions were first met by the carriers' counter-demand for modifications or eliminations of 16 classes of working rules. The board's recommendations as to rules changes were confined to those noted above, the report having observed in that connection that "most" of the rules questions raised by the carriers "are answered by the nature of the recommendations we make with respect to the 40-hour week and penalty pay proposals."

The "Prevailing Practice"

Meanwhile, the report had outlined the conflicting positions of the parties, and then proceeded to deal first with the 40-hour-week demand. There the board found that such a work week is now "the prevailing practice in American industry," being in effect "in innumerable continuous production industries," and in "many industries which employ craftsmen included in the non-operating railroad groups."

"This pattern," the board added, "is extremely impressive in itself as a sound basis for including the railroad industry within its scope. The railroads stand out now as a striking exception."

Moreover, as the report proceeded to put it, there are "other special reasons" for establishing the shortened work week for the "non-ops," foremost among them being the fact that employment in the railroad industry has "steadily declined" for many years. The board had led into this conclusion after recalling that unemployment was the "underlying reason" for establishing the 40-hour week in industry generally in 1933 when it was first set up under the National Recovery Administration. "Since World War II," the report also said, "employment in general has risen by 8,000,000, but railroad employment has been declining each year."

Figures indicating "improvements in productivity" on the basis of revenue traffic units per employee and per man-hour were set out in the report as the board observed that "there is merit in the view that one of the ways in which workers share in the benefits of increasing efficiency is by having shorter working hours." Here also was quoted that phrase of the Interstate Commerce Act's declaration of policy which calls for the encouragement of "fair wages and equitable working conditions" in the transportation field.

40-Hr. "Principle" Adopted in 1944

And next came the board's assertion that "the principle of the 40-hour work week has already been adopted in the railroad industry, although its practical effectiveness has been postponed." That assertion was based on the grant of 2.4 cents per hour "in lieu of overtime after 40 hours," which was included in a January 17, 1944, wage agreement entered into after the intervention of the late President Roosevelt in the controversy involved.

Because it found the record before it "devoid of convincing arguments in answer to the foregoing considerations," the board turned to its consideration of the carriers' "most effective points" — those dealing with "the practicability of putting the 40-hour week into effect at the present time." In doing so it made this comment: "It is deemed unnecessary and inappropriate at this late date to inquire into the theoretical advantages or disadvantages of the 40-hour week. It is now firmly a part of our national industrial policy." As to the maintenance of the 48-hour basis of pay, the board said that had been done "generally" in other industries when they converted to the shorter week, and "no substantial evidence to the contrary was presented at the hearings."

It did, however, proceed to determine whether such an hourly increase for the "non-ops" would "dislocate" their hourly rates in relation to employees in comparable industries. A negative answer was arrived at, because the present hourly rates of the railroaders are "disproportionately low," although their weekly earnings "do not compare unfavorably with those in other industries where the employees work 8 hours less per week." The average hourly rate of the "non-ops" in October was put at $1.213, as compared with an estimated rate of "at least $1.50" for employees in the 25 manufacturing industries covered in a cited wage study by the National Industrial Conference Board.

These and other wage comparisons left the board "convinced that the equities of the situation strongly favor" the maintenance of the 48-hour basis of pay. "It is doubtful," the report added, "whether railroad managements themselves disagree with this conclusion, except as to the practicability of adopting it at this time."

The "more important" practical considerations were listed by the board as the possible shortage of labor, the continuous-operation nature of the railroads, the time required for transition to a shorter work-week, and the competitive and cost problems presented. Noting that the carriers placed "great emphasis" on the present labor shortage and estimated that the 40-hour week would require them to find 200,000 to 300,000 additional employees, the board called the estimate "exaggerated." It recalled the Interstate Commerce

Commission's 1932 inquiry into the feasibility of a 36-hour week, pointing out that the railroads there stated that they would have to make up only 25.8 per cent of the 33 1/3 per cent loss in man-hours; and that the I.C.C. found that only 22.2 per cent would have to be made up.

"There are," the report continued, "about 100,000 clerks in certain offices who are now working only five and one-half days. If they go on a five-day week obviously only about 10 per cent of the hours will have to be replaced, not 20 per cent. The same is true of other workers who work only part time on Saturdays or who alternate or rotate with others on Saturdays. It is hard to believe that most of the work now done by the clerks on the Saturday half-days cannot be absorbed within the five-day week proposed without supplementary employees. There is a certain amount of latitude as to when work must be done in the shop and maintenance-of-way classifications. Indefinite deferment of repairs and replacements is not suggested, but within reasonable limits rearrangements of work may be made. If the estimate of the I.C.C. in 1932 is proportionately applicable today, and no convincing reason was given against this view, then somewhat less than 14 per cent instead of the full 20 per cent would be sufficient.

"One cannot help but be impressed by the flexibility shown by railroad management under all sorts of trying circumstances in the past. While the unions' opinion that only 5.4 per cent of the hours would have to be supplemented is probably an understatement, it is nevertheless a fact that the current intensive modernization program of the carriers will accelerate the trend toward further efficiency and labor savings which will have a growing influence on the percentage that, in fact, will have to be supplemented. This acceleration, supported by a great deal of detailed evidence in the record, impresses the board that now is probably a more favorable time for a work-week adjustment than 1932 was.

"Since at that time the estimate of the I.C.C. on a reduction from 48 to 36 hours was that only 22 per cent of the man-hours would have to be made up, it follows that in a change from 48 to 40 hours only 14 per cent would be required. When the reduction in hours is less, it is not unreasonable to believe that the likelihood of employees more nearly carrying their work loads is better. The board cannot undertake to say exactly what the replacement percentage would be on shortening the work week by 8 hours. It is convinced, however, that it will definitely work out to be less than 14 per cent."

Sees Labor Available

With respect to the availability of labor, the board found that the shortage since the war has not been a real handicap to the railroads. Its bill of particulars on that score included reference to up-gradings during the war; and the subsequent demotions which have left "a reservoir of employees experienced in higher skills who could be moved up again if necessary."

The board then discussed its recommendation that the carriers be given until September 1, 1949, to make the adjustment. There it explained why it was not suggesting a longer period of preparation in view of the fact that the Fair Labor Standards Act gave other industries a total of about 27 months to move down to the 40-hour week. "The preparatory period," the report said, "is not extended further because the carriers have been on notice since 1943 [by the January, 1944, wage agreement mentioned above] that the full effectuation of the 40-hour week in railroads is expected and because the employees have had this shorter work week withheld from them for more than 10 years. [The Fair Labor Standards Act was enacted in 1938, but railroad employees, at the suggestion of their union leaders, were exempted from the maximum-hours provisions].

In rejecting the unions' demand for a Monday-through-Friday week with time and one-half for all work on Saturdays and double time on Sundays and holidays, the board said that the staggered five-day week which it recommended is employed in "other continuous-process industries." It added that the employees' two consecutive days off in seven should be Saturdays and Sundays insofar as that is "practicable."

The report considered at some length the cost estimates summarized above. There came the board's own estimate that the 1949 cost of the 40-hour week and 7-cent increase would total $340,000,000. This was followed by a discussion of the financial condition of the railroads and a reference to the Ex Parte 168 petition for a 13 per cent increase in freight rates which is now pending before the I.C.C.

"The operating revenues for 1948," the report said, "will be the highest in 23 years, and the estimate for 1949 is only slightly below that for 1948. If the entire rate increase of 13 per cent . . . were granted there would be an increase in operating revenues of over $1 billion."

The board then pointed out that railroad rates have not been increased to the same extent as prices generally; and, on the matter of the diversion threat, it suggested that railroad competitors are also encountering increasing costs. "The evidence," it added, "satisfies one that the railroads over the past 10 years or so have maintained their proportionate share of the traffic."

The Wage Demand

As to the wage demand, the board said that the employees presented "little direct evidence" to justify the request for 25 cents an hour. They submitted evidence as to increases in the cost of living, and evidence to the effect that the pattern of "third round" wage increases in manufacturing industries was 13 cents an hour. Meanwhile, they laid "greatest stress on the fact that since 1921 when they were among the highest paid workers they have gradually lost this position so that today their hourly rates are lower than the rates paid for similar work in other industries by more than 20 per cent, according to their estimate." This, however, was ascribed mainly to the establishment of the 40-hour week in other industries since 1933.

The board's review of the evidence brought it to the conclusion that a wage increase of 10 to 13 cents was "the most" that might be justified. It proceeded, however, to reject the unions' contention that the matter should be considered separate and apart from the 40-hour-week demand. The board was persuaded

that the unions meant what they said when they called the latter demand a "must." Thus, the report added, the employees "can hardly regard the other requests they have made as equally important, . . . Certainly they can not expect as large a wage increase at this time as they might be entitled to if they were not insisting on a 40-hour week."

Proceeding on that basis through comparisons with industrial wage data of record, the board arrived at the 7-cent figure as "the most reasonable amount that will come nearest to doing justice to all concerned." Previously the board had estimated that the application of the 40-hour week during the last four months of 1949 would be equivalent in cost to a wage increase of about 6 cents an hour applicable throughout the whole year. Thus, as the report put it, "the total hourly increase in wage costs for the non-operating employees in 1949, including the 7-cent general increase, would not exceed 13 cents."

In fixing October 1 as the date to which the 7-cent increase would be retroactive, the board recognized the fact that the "non-ops" had served notice of their demands on April 10, about three months before the operating employees served demands which resulted in the 10-cent increase effective October 16. The "non-ops" had asked that the retroactive date be 30 days after the date of their demand, or at least as much before October 16 as April 10 was before the dates of the "op" notices.

The chief executives and general chairman of the 16 non-operating organizations—following a two-day meeting at Chicago—stated on December 21 that they "had no quarrel" with the general statements of fact made by the Emergency Board in its report, but that the "specific recommendations" fall far short of what they believe to be an equitable basis of settlement. The unions stated that they feel that the board's report "can be used as a starting point for negotiations to work out an acceptable settlement," and announced that they would resume negotiations with the carriers.

Communications . . .

Churchmen Unfriendly To Free Enterprise

HATTIESBURG, MISS.

TO THE EDITOR:

I have read with interest and approval the editorial in the November 27 *Railway Age* entitled "How to Reverse the Trend Toward Socialism." In addition to the ways mentioned in the editorial to combat the present trend toward socialism, there is another very important way that this may be done.

Business and professional men and others interested in the preservation of the individual competitive enterprise system and constitutional government should obtain first-hand information pertaining to the economic, political, social and racial activities and objectives of the Federal Council of the Churches of Christ in America. This strong political pressure group claims to speak for more than twenty-eight million church members. At a recent meeting of the executive committee of the Federal Council of Churches, Charles P. Taft, president of the Federal Council, made the following statement which was approved by the executive committee of 85 persons, most of whom are ministers:

> While the council seldom takes a position with regard to technical details of legislation and certainly does not consider lobbying as one of its principal activities, I consider it my duty as president of the Federal Council of the Churches of Christ in America to urge our church members and the members of Congress to study and act promptly upon these basic issues of social policy on the basis of human welfare and the moral health of the nation and hope that they will not be exploited for partisan purposes. The times are too grave to permit us to treat any of these issues narrowly.

Mr. Taft may feel that lobbying is not one of the principal activities of the Federal Council. However, the record shows that the council has been doing a lot of lobbying. They have an office in Washington and the annual report of the council for 1947 shows in the budget for 1948 an item of $17,500 to maintain the Washington office.

Many of the leaders of the Federal Council, including past presidents, have been connected with Communist-front organizations, according to the files of the Committee on Un-American Activities of the House of Representatives.

The World Council of Churches, which, according to the general secretary of the Federal Council of Churches, "is built upon the pattern which has been tested in the Federal Council for forty years," at their recent meeting in Amsterdam, placed Communism and Capitalism about on the same level. Many of the leaders of the Federal Council of Churches were present and took an active part in the permanent organization of the World Council of Churches at their meeting in Amsterdam last August. Bishop G. Bromley Oxnam, immediate past president of the Federal Council, was elected as one of the Presidents of the World Council of Churches.

L. E. FAULKNER
Vice-Pres. & Gen. Mgr., Mississippi Central

Disagrees With Critical Fireman

RUSSELL, KY.

TO THE EDITOR:

It was with great surprise that I read Warren J. Kiefer's letter in the December 4 *Railway Age*. I am a fireman (promoted) myself and have worked on the Chesapeake & Ohio for a number of years, and conditions on our railroad are entirely different from those on the railroad Mr. Kiefer speaks of. I know some firemen on the N. Y. C. and they assure me that they are treated as well as we are.

I am sorry Mr. Kiefer does not work here. It is a real pleasure to work for a set of railway officers that have at heart the interest of the men that work under them like the C. & O. men have. It has been the policy of the C. & O. to promote men from the ranks and they are not only familiar with the work but know all the problems that confront the men under them.

We on the C. & O. instead of considering our supervising officers our enemies, feel that they are our friends, and when we get in serious trouble, go to them to get them to intercede with the higher-ups in our behalf.

C. A. CUNNINGHAM

EFFICIENCY, CAPITAL OUTLAYS, INADEQUATE EARNINGS, STAND OUT IN 1948 RECORD

By WILLIAM T. FARICY
President, Association of American Railroads

Three facts stand out in the 1948 record of the railroads.

The first is that the railroads moved, with an all-time record efficiency, a freight traffic well above any pre-war year and only slightly below the record peacetime year of 1947. Measured in tons of freight hauled one mile, this traffic approximated 640 billion ton-miles, only 2.3 per cent below 1947, but 43 per cent above 1929, the prewar record year.

The second fact is that increases in costs since 1939 have been so much greater than the increases in rates that even while handling this tremendous traffic with record efficiency, the railroads were able to earn a return on the net amount invested in them which averaged barely 4¼ per cent. And out of this return, of course, the railroads must pay interest, rentals and other fixed charges, while out of what is left for the owners, a considerable part of the cost of providing necessary improvements must be met.

The third outstanding fact in the record for 1948 is that the railroads spent one and one-quarter billion dollars on improvements to their plant and additions to their equipment. When final figures are in, it may well be that this, too, is an all-time record for such expenditures made to increase the capacity and improve the service of the railroads to the public.

A major element in this program was the installation during the year of more than 100,000 new freight cars, as compared with 63,000 in 1947. Even with this increase in the supply of equipment, however, there is continuing need for still more new cars, and the railroads now have orders in for more than 100,000 additional.

The additional freight cars are but part of the improvements programmed by the railroads for the year 1949. Preliminary reports indicate that in that year, again, railroad investment in improved plant and equipment will exceed a billion dollars. It is difficult to continue such investment, however, if railroads are able to earn on the money invested in them, and subject to all the risks of business, only a little more than is earned on United States bonds, the most nearly riskless investment on earth. The future of the railroads depends upon their having an opportunity to earn a return which will average, over the whole industry, and taking bad years as well as good, not less than the 6 per cent on investment which is commonly considered to be the minimum on which business can be successfully conducted.

The increases since 1939 in major items of cost of railroad operation—wages and payroll taxes and the prices of materials, supplies and fuel—has averaged 101 per cent. In other words, they have doubled. On the other hand, the increase in the average level of freight rates has been only slightly more than two-fifths as much, and the average revenue received for hauling a ton of freight one mile has gone up only 28 per cent.

The railroads have met this disparity, in part, by increased volume of business and increased efficiency in handling it. The ton miles of freight traffic in 1948 were 92 per cent above 1939 and passenger traffic in 1948 amounted to 40.4 billion passenger miles, 12 per cent less than in 1947, but 78 per cent more than in 1939.

One important measure of the increasing efficiency of railroad operations is the fact that in 1948 they carried an average of 1,175 tons per freight train, the greatest on record. At the same time, there was a slight increase in the average speed as compared with the two preceding years, so that the net output of transportation per hour by the average freight train was greater than ever before. The 1948 average output of 18,658 ton miles of freight per hour compares with 10,580 ton miles in 1929. This performance was made possible by improved operating methods, more powerful and more efficient locomotives, better freight cars, improved signaling and other devices, as well as heavier loading.

Some of the details of the outstanding operating performance of the railroads in 1948, as compared with that of the pre-war peak year of 1929, are as follows:

1. The average load per freight train was 1,175 tons, the highest on record and 46 per cent above that in 1929.
2. The average freight train turned out 18,658 net ton-miles of transportation service for each hour it was on the road. This was the highest on record and an increase of 76 per cent compared with 20 years ago.
3. The average load per car was 33 tons, the highest for any peacetime year. In 1929, the average was 26.9 tons.
4. Each serviceable freight car in 1948 carried an average of 1,020 net tons of freight one mile each day, compared with 582 in 1929.
5. Each active passenger locomotive in 1948 traveled an average of 220.6 miles per day, which was higher than in any pre-war year and an increase of 34.1 per cent over 1929.
6. Each active freight locomotive traveled an average of 116.8 miles per day, an increase of 28 per cent, compared with 1929.
7. Approximately 111 pounds of coal (or the equivalent thereof) were required to move 1,000 tons of freight and equipment a distance of one mile in 1948, compared with 125 pounds in 1929, or a reduction of 11 per cent.
8. Each serviceable freight car in 1948 traveled an average of 47.1 miles each day, an increase of 37 per cent above 1929.
9. The average capacity per freight car in 1948 was 51.7 tons, the highest on record, compared with 46.3 tons in 1929.
10. Average tractive effort per steam locomotive in 1948 was 55,189 pounds, the highest ever reported, and an increase of 23 per cent compared with the average 20 years ago.

GENERAL NEWS

Advises I. C. C. of Wage Report

Aronson revises rate-case estimates of 1948 and 1949 net

Jacob Aronson, vice-president of the New York Central and chief counsel for the railroads in the pending Ex Parte 168 freight-rate case has formally advised the Interstate Commerce of the issuance on December 17 of the emergency-board report which recommends the establishment for non-operating employees of a 40-hour week, effective September 1, 1949, and a wage increase of 7 cents per hour, retroactive to October 1 of this year. The advice was embodied in a December 20 letter which Mr. Aronson wrote to Commissioner Aitchison, chairman of Division 2.

The letter pointed out that, "by stipulation of all parties," the wage report (reviewed elsewhere in this issue) is a part of the record in the rate case. The latter is now before the commission on the carriers' motion for an immediate increase of 8 per cent to remain in effect as a measure of interim relief while the commission passes on the basic petition's request for a permanent advance of 13 per cent.

After summarizing the emergency board's recommendations, Mr. Aronson called the commission's attention to that part of the board's press release which estimated the 1949 cost of its proposals at $340,000,000—$80,000,000 more than would have been involved for the same period in the management offer to extend to the "non-ops" the 10-cents-per-hour increase granted to operating employees, effective October 16. The railroad evidence in the rate case had assumed that the latter would be done; and thus Mr. Aronson submitted revised figures to the commission.

Those figures were based on the emergency board's estimate of the 1949 cost of its recommendations, although Mr. Aronson said that he was not thereby accepting that estimate which was less than those introduced in the wage case by the carriers. The new figures show that the board's proposals would bring the prospective 1948 net railway operating income down from $1,011,800,000 to $970,000,000; and the prospective 1949 net railway operating income down from $663,400,000 to $614,000,000, on the basis of present rates, and from $1,246,700,000 to $1,198,000,000, on the basis of the proposed 13 per cent advance.

"As stated in the petitions of the carriers in Ex Parte 168 and as established by the evidence in that proceeding," Mr. Aronson also said, "the increased cost of materials and supplies since November 1, 1947, on an annual basis, amounts to $337,000,000, and the cost of a 10-cent wage increase to all employees, on an annual basis, amounts to $371,000,000, a total for both items of $708,000,000. The estimated additional gross revenues to accrue from the granting of the motion for the 8 per cent interim rate increase amount to $672,500,000. Allowing for absorptions, corrections and adjustments to the extent of 5 per cent would reduce this figure of additional revenues to $638,000,000. To adjust the wage increase cost to the basis recommended by the emergency board, but not including any cost of the 40-hour week, would produce a current wage cost on an annual basis of $300,000,000. When added to the increased cost of materials and supplies this amounts to $637,000,000."

I. C. C. Continues Reservation Hearings

"Black market" charges not substantiated by testimony

A long parade of witnesses, appearing in the Interstate Commerce Commission's investigation of railroad and Pullman Company space reservation practices at New York beginning December 20, testified to some difficulty in obtaining desired accommodations on specific trains, and to occasional payment of gratuities to individuals for obtaining space, but failed to bring out evidence of any organized or widespread "black market" in either coach seats or Pullman berths.

The New York hearing was the second to be held in the commission's investigation, the nature and purpose of which was described in the *Railway Age* of October 16, page 81. Like the first hearing, held at Chicago on November 18 and 19, and reported in the *Railway Age* of November 27, page 40, the sessions at New York were conducted by Commissioner Richard F. Mitchell and Examiner F. E. Mullen. Other hearings are scheduled for Miami, Fla., on January 24, 1949, and Los Angeles, Cal., on February 28.

Most of the New York witnesses appeared as individuals, and their testimony related to difficulties they claimed to have experienced personally in obtaining the particular type of space they wanted on the particular train they wished to use. All of them, it appeared, had been able to get space, but not always of the desired type or on the desired day or train, and in some cases by payment of gratuities to various individuals whom the witnesses were in most cases unable or unwilling to identify.

The reported gratuities ranged from $5 to $35, the latter amount having been allegedly paid by Sam Friedlander of Brooklyn, N. Y., to a uniformed man, pointed out to him by a red cap, in the Pennsylvania station, for getting a compartment and two tickets to Miami. "He asked forty," Mr. Friedlander said, "but I bargained him down to thirty-five." Mr. Friedlander's memory failed him when Commissioner Mitchell inquired about his total payment, including the cost of the tickets and compartment, but he hastily added: "I remember good the thirty-five. That hurt!"

A "uniformed man" in the Pennsylvania station was also named as the recipient of smaller gratuities from one or two other witnesses, who stated, however, that they had made the payments voluntarily. An unidentified Hudson Terminal ticket agent was reported

LOSS AND DAMAGE RATIO GOES STILL HIGHER

The ratio of loss and damage claims actually paid by the American railroads in the first half of 1948 to the freight revenues collected during that period was 1.75, a considerable increase compared wth a ratio of 1.66 in the first half of 1947, 1.57 for the whole of 1946 and 1.16 for the whole of 1945. 1948's ratio is higher than that for any year since 1910, with the exception of postwar 1919, 1920 and 1921.

The actual amount paid out in the first half of 1948 was $66,711,882, an increase of 18.7 per cent over that accruing in the first half of 1947.

Those commodities which showed the highest percentage increase in claims paid were:

Commodity	Per Cent Inc.
Frozen Foods	113.6
Refrigerators	93.7
Sugar	76.4
Enamelware	74.8
Sewer pipes	72.8
Plumbers' goods	73.9
Stoves, ranges	69.6
Flour and mill products	66.8

as having received $15, but in all other cases where gratuities had been paid they had gone to hotel porters or bellboys, travel agency employees, or other persons not officially connected with any railroad. Thomas J. Donovan, New York attorney, testified, for example, that he "customarily" obtains reservations through a hotel, and considers it "expedient" to pay an average of $5 for such service.

Later in the hearings Joseph Popick, Pennsylvania passenger representative on station duty in that road's New York terminal, was called to testify as the alleged recipient of gratuities mentioned by the earlier witnesses. Mr. Popick stated that he had known Mr. Donovan for "eight or 10 years," had frequently obtained space for him, and had accepted gratuities in return "on very rare occasions." He accepted "tips," he said, only about "a dozen times a year" and then only from personal friends. His duties, Mr. Popick testified, were to help any travelers "in need of assistance," and he cited instances in which he had refused financial rewards for performing those duties. He vigorously denied ever having asked or demanded payment for getting tickets or space; and also denied having sold or resold tickets at more than tariff rates.

Several other witnesses beside Mr. Donovan said they frequently found it easier to obtain space through hotels or travel agencies than through established railroad channels. Walter Wachter, New York school teacher, stated, for instance, that he had been unable to obtain assurance of return reserved coach space from Miami to New York on January 1, 1949, even though several travel agencies are currently advertising escorted tours leaving Miami in similar accommodations on that day. Alfred Perrell, secretary of the National Council of Salesmen's Organizations, said he had been unable to obtain space from Pittsburgh, Pa., through railroad offices, but got a roomette "in 10 minutes" from a hotel porter and then found the train "80 per cent empty." Mr. Perrell, Gregory Caminiti, and Mrs. Olga Ross, all representing the same organization, testified that salesmen are finding it difficult to get reservations, except by paying gratuities to hotel porters, and requested that they be given "fair consideration." Mrs. Ross was the only witness who reported having any trouble about obtaining lower or upper berths; the other witnesses, without exception, were interested either in reserved coach seats or in closed Pullman space — roomettes, compartments or drawing rooms.

Other witnesses also alleged difficulty in obtaining reservations through regular channels, or asserted that after having considerable trouble in getting space or paying a gratuity therefor they found their car "nearly empty."

Some of the witnesses seemed to feel that the railroads could eliminate any difficulty in getting space if they wanted to, and made some suggestions to that end. Some of the suggestions were to the effect that reservations be held only long enough to be picked up and paid for; that all withholding of space for regular travelers or large organizations be stopped; and that refunds for cancelled space be made on a sliding scale, with the percentage of refund being gradually reduced as the departure date approaches. This latter suggestion came from Warren D. Lloyd, special sales manager of the Kelley-Koett Manufacturing Company, who said he had made quite a study of the space reservation situation, and had offered his ideas to the railroads.

The practice of reserving blocks of space for large companies came in for considerable discussion, but testimony from one such company—Western Electric—was to the effect that over 90 per cent of space reserved was actually used.

G. R. Burkett, Atlantic Coast Line police sergeant, testified that he interviewed approximately 2,000 passengers on that road's "Champion" in January, February and March, 1948, and found less than a hundred who admitted to having paid a premium to anyone for their seats. Of these, he said, only 20 or 25 were willing to give names and other information. What other complaints he heard related to methods of selling or inability to obtain space on desired days. The New York-Miami run during the winter tourist season was the one most frequently mentioned, though some witnesses also reported difficulty in obtaining space between New York and Chicago or other points.

Edward L. Murphy, special agent of the commission's Bureau of Inquiry, read a report of an investigation he conducted in March and April, 1948, of Pennsylvania practices at New York, with particular reference to sales of Florida space. Mr. Murphy "found some evidence" to indicate that cancelled space could be resold at a premium outside of regular channels but gave no specific instances of such resale. He did cite rule violations by reservation clerks in making block reservations, but stated that the Pennsylvania "is fully aware of conditions . . . and is striving to correct them." The railroad, he said, employs a private detective agency to investigate and prosecute those who engage in black market operations; "out of hundreds of spot checks made last season, only four cases were considered strong enough to be referred to the district attorney for prosecution under the (New York) city ordinance making it a misdemeanor to charge more than $1 for the service of procuring railroad tickets." His report listed several cases of premium sales, only two of which, however, involved railroad employes. He also stated, as did Sergeant Burkett, that New York-Florida trains had a substantial amount of unused space even at the height of the seasonal rush.

Arthur E. Knowles of the same bureau reported finding "some irregularities" in a spot check made on December 16 of reservations on the Seaboard Air Line's "Orange Blossom Special," and also read a prepared statement of reservation practices at Washington, D. C. On cross-examination he stated that he found "no evidence" of a black market in Washington.

Railroad Officers Testify

The second day of the hearings was devoted largely to testimony of railroad witnesses. In opening the railroad presentation Guernsey Orcutt, general attorney of the Pennsylvania and chief counsel for the railroads in the case, said in part:

"We do not deny that there has been adverse criticism and publicity in the past several years, but a considerable portion of the criticism has been unfounded. In the New York reservation

"WHO, ME?" SAYS FREIGHT HANDLER, WINNER OF $1,000 ESSAY CONTEST

George A. Gauby, a 47-year-old freight handler, thinks the railroad business is tops. In brief, he likes his job at the Denver & Rio Grande Western's station in Glenwood Springs, Colo., a resort town in the Rockies. He has served there for four years, and has been employed 13 years with the Rio Grande.

Mr. Gauby recently put into writing his thoughts on the railroad profession and entered the results in the nationwide "Why I Like to Work For My Railroad" contest, sponsored by the American Railway Magazine Editors' Association. On December 13 he was informed that his essay had been judged the best of nearly 5,000 papers entered by employees of 29 railroads and won for him the $1,000 national first prize. A bit bewildered, he exclaimed, "Who, me?"

A luncheon sponsored by the Glenwood Springs Chamber of Commerce was given in his honor on December 15, at which he sat between Judge Wilson McCarthy, president of the Rio Grande, and Congressman-Elect Wayne Aspinall. Also attending were other top officers of the railroad the general chairman of the union of which Mr. Gauby is a member and two officers of the A.R.M.E.A. His wife and 12-year-old daughter were also present.

After lunching with the railroad president and congressman, he received his $1,000 check from Walter C. Mittelberg, retiring president of the A.R.M.E.A. Shortly thereafter, Mr. Gauby went back to work handling baggage and freight at the depot building, just across the Colorado River.

The second-place winner in the contest was Ralph H. Sanborn, agent, Boston & Maine, Raymond, N. H., who received $250. A third prize of $100 went to John B. Corson, chief clerk to division superintendent, Illinois Central, Waterloo, Iowa. A mention of merit was given the essay of Manuel Rubio, shop inspector, Southern Pacific, Douglas, Ariz.

bureau of the Pennsylvania, for instance, from 20,000 to 33,000 diagrams of space on Pullman and reserved seat coach trains are currently in use at all times. . . . As many as 35,000 reservation transactions are handled daily, and during the short winter season from December 15 to March 15, approximately 2½ million transactions will be handled by the Pennsylvania reservation forces alone. Considering this volume, criticisms against Official and Southern lines may be considered to be proportionately small.

"The proportionately small number of criticisms have arisen solely because of a change in the tastes of the traveling public and an insistence upon having a particular type of accommodation. The overwhelming demand today for space in sleeping cars is for rooms, with a decided aversion to the open space commonly known as uppers and lowers. . . . The railroads had no possible means of keeping abreast of the changing demand, and as a result, more uppers and lowers have been available than were wanted by the public, while the supply of closed or room space of various kinds was greatly exceeded by the increasing demand.

"These facts have all along been known to the carriers and as soon as possible after the war, orders were placed for new passenger cars which would supply space of the kind currently desired. The deliveries of new equipment have been necessarily slow. . . . An adequate supply of cars to meet normal travel demands should be available in the near future.

"When the new equipment now on order is all delivered, the demand for space of every kind will be fully met. In fact, with the proportionately small deliveries already made, the demand for space between New York and Florida this winter will cause no great difficulty. . . . Space of some kind will be available for anyone making a trip to Florida and return.

"It is our continuing desire to serve the convenience of the traveling public and any suggestions for improving the service, not only on the railroads serving New York, but on any railroad in the country, will be appreciated and will receive thorough study and careful consideration."

Mr. Orcutt was followed by H. T. Askew, Richmond, Va., general passenger agent, Chesapeake & Ohio; Vanderbilt Armold, New York, chairman, Trunk Line-Central Passenger Committee of the Traffic Executive Association, Eastern Railroads; Sidney W. Bone, Chicago, passenger traffic manager, New York Central; Everett E. Pierce, New York, general passenger agent, N.Y.C.; Holmes Bannard, New York, testifying in his former capacity as general passenger agent, Pennsylvania; D. L. Moorman, Washington, general passenger agent, Baltimore & Ohio, and R. E. Coleman, Chicago, passenger traffic manager, B. & O.

The foregoing officers described reservation practices on their respective roads, and the various methods used to guard against illicit purchase and resale of railroad or Pullman space, such as telephone monitoring and spot checks. Without exception, they agreed that railroad employees as a group were not guilty of "black market" practices.

"Closed Space" in Heavy Demand

They also agreed generally on the following points:

1. That much of the difficulty reported by travelers in obtaining space is due to the heavy demand for reserved coach seats or closed Pullman space, in preference to unreserved coach seats or open section Pullman berths. Mr. Moorman, for instance, stated that "We have no difficulty in meeting all demands for lower and upper berth space. It is only as to the room accommodations where we have any problem. There is always some space available on all of our trains."

2. That full delivery of new equipment now on order, by providing a much larger quantity of closed space, will largely solve the problem.

3. That last-minute cancellations are, as expressed by Mr. Bone, "one of the most difficult problems facing traffic officers. . . . When space is cancelled on the day of departure, it frequently happens that there is insufficient time to resell the space, and the train moves with some accommodations unoccupied." Both the N. Y. C. and C. & O. presented cancellation statistics, which drew from Commissioner Mitchell the remark that "Cancellations seem to be one of our problems. It is evident the New York Central is losing a lot of money." Mr. Bone thought that penalties for late cancellation, as suggested by earlier witnesses, would stimulate "black market" activities by inducing holders of space to resell it rather than cancel at penalty rates.

Public Contributes to Problem

Mr. Bannard, emphasizing that "The public demand is almost entirely for rooms; section space is accepted only grudgingly if not flatly refused," also agreed with other railroad witnesses in feeling that new equipment would largely solve the problem, and in his concern about the late cancellation problem. Expressing the opinion, "supported by the results of extensive investigations," that "there has never been any organized or widespread black market," he added:

"The public, accustomed to offering premiums to secure desired commodities and services made scarce by the war and its aftermath, has contributed to the railroads' problem. It has been the voluntary contribution so often complained of as a demand payment that has been the real cause of so much black market talk. . . . If all the complaints about inability to secure accommodations, premiums being paid, trains carrying empty space and the like in connection with Florida travel during last season were counted, they would not amount to one per cent of the total number of passengers carried to Florida."

Mr. Pierce said his company expected to file shortly a tariff providing a $1 service charge for reserved coach seats, to become effective February 1, 1949.

10-Cent Increase Halts Strike On Baltimore & Annapolis

The Baltimore & Annapolis last week granted a wage increase of 10 cents an hour to its operating employees, thereby ending a seven-day strike which had stopped the road's bus and rail service. Bruce P. Wilson, executive assistant to the road's president, said application will be made to the Maryland Public Service Commission for authority to increase passenger fares to cover the cost of the wage increase.

Representation of Employees

The National Mediation Board has certified the Brotherhood of Railway & Steamship Clerks as the representative of Lexington, Ky., Union Station clerical, office, station and storehouse employees, including station masters and assistant station masters. The certification was made on the basis of a check of representation authorizations; previously, the employees involved were not represented by any organization.

As the result of a recent election, certified by the N.M.B., carmen, including helpers and apprentices, of the Chicago Heights Terminal Transfer are now represented by the Brotherhood of Railway Carmen of America, function-

QUILL CALLS FOR GOVERNMENT OWNERSHIP OF LONG ISLAND

In a letter addressed to the New York Public Service Commission on December 15, Michael J. Quill, president of the Transport Workers Union, called for "seizure and operation of the Long Island Rail Road by the State of New York."

Mr. Quill's letter urged the commission to recommend to the governor and the legislature that the state "acquire the property for the purpose of full operation of the routes" as the only way "to bring some sanity into this situation."

"State ownership and operation are not new in American railroading," Mr. Quill also wrote. "The federal government has done it on many occasions. . . . (Such a) step would end finally 20 years of mismanagement. It would be applauded not only by the people of Long Island, but by all the people of New York."

The T.W.U., a Congress of Industrial Organizations affiliate, claims to represent more than half the Long Island's estimated 7,000 employees, and reportedly plans to ask for a collective bargaining election on the line "in the near future."

ing through the Railway Employee's Department, American Federation of Labor. These employees also were not previously represented by any organization.

The Brotherhood of Sleeping Car Porters has extended its coverage of New York, New Haven & Hartford employees to include parlor car attenparlor car porters and space assigners, dants and bus boys, in addition to as the result of a recent election certifide by the N.M.B. As reported in *Railway Age* of November 20, page 236, the board, reversing a previous determination, held that parlor car attendants and bus boys employed by the New Haven should be included with parlor car porters and space assigners rather than with dining car employees for the purpose of determining representation for collective bargaining purposes. On the basis of its latter ruling, the board ordered the present election to determine representation for the group as enlarged, meanwhile setting aside a previous certification issued on the basis of an earlier election (also won by the B. of S.C.P.) from which the parlor car attendants and bus boys were excluded.

C. & N.W. Opens $1.8 Million Diesel Shop at Chicago

A $1.8 million "super-service station" for Diesel-electric locomotives was officially opened by the Chicago & North Western at Keeler and Kinzie streets, Chicago, on December 16, when one of the road's latest Diesel road locomotives broke through a silver-paper wall covering one of the main track entrances. Some 250 representatives of other railroads, shippers, suppliers and members of the press were present at the opening. They were shown in detail the capacity of the "pushbutton" shop for speedy service to Diesel units ranging from light servicing to complete renewal of major locomotive assemblies.

The shop, which comprises 1,928,000 cu. ft., is equipped to service nine units at one time, releasing them for action, according to the railroad, "in a matter of a few hours." Simultaneously therewith, it can handle three additional units undergoing more extensive repairs.

Erie Continues Courtesy Course

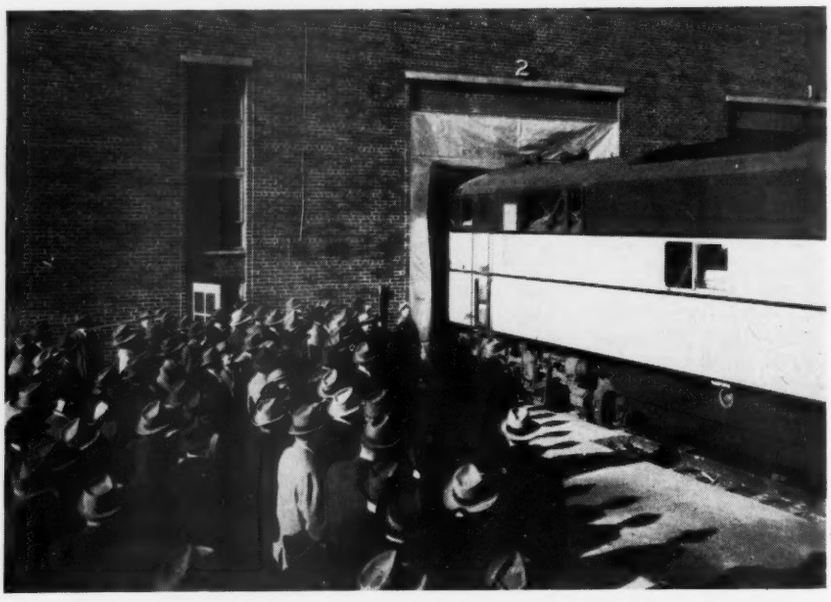
Erie passenger conductors and trainmen are participating in a training course on how to perform their work in a friendly and congenial manner, R. B. Rogers, passenger traffic manager, has announced. This course continues the series of conferences held for the past 11 years at principal points on the system, in which the advantages of efficiency and a courteous attitude toward the traveling public have been discussed.

The conferences, under the direction of Alfred Fynn, general passenger agent, Charles D. Mee, chief clerk passenger accounting, division superintendents and trainmasters, will also take up the manual of instructions, proper handling of tickets, accounts and application of regulations. A feature of this year's conference is an open-forum "question and answer" period covering questions previously submitted by conductors and trainmen. Today's travel market and sales features of dieselized passenger service will also be discussed.

Warren Tells N.E.R.R. Club P. & S. Important

Speaking before the New England Railroad Club at its annual Purchases and Stores Night at Boston, Mass., on December 14, H. E. Warren, vice-president, purchases and stores, Gulf, Mobile & Ohio, and chairman, Purchases and Stores Division, Association of American Railroads, said the work of procurement and storage departments had been one of the leading factors in making the American railroads' wartime record such an outstanding one. He emphasized that their good, or poor, performance in buying and keeping track of materials made an important difference in the figures in the railroads' balance sheets at the end of the year.

To illustrate his point Mr. Warren went into the problems of procuring departments in consolidations such as those which went into the formation of the present G.M. & O., where many different standards of rolling stock, rail, signal equipment and motive power



Above—Latest road Diesel pierces silver-paper wall to open $1.8 million "super-service" Diesel shop of the Chicago & North Western at Chicago. Below—Inspecting pit in new Diesel shop are (left to right): E. C. Vandenburgh, chief engineer; R. L. Williams, president; Robert Williams; J. E. Goodwin, vice-president and executive assistant to the president, and B. R. Meyers, assistant chief engineer

made it necessary to proceed with caution in adopting and buying for new and different standards. Otherwise material might have been wasted and too much money drawn from the railroad treasury and invested in materials which could not be used for some time. Such items as the punching of angle bars, and specialties for cars and locomotives were just a few of the items Mr. Warren mentioned.

In discussing the financial and equipment position of his road today, Mr. Warren said their balance sheet should be about six million dollars "in the black" this year. "At present," he said in speaking of the equipment in use on the G.M. & O., "all of our passenger trains are Dieselized, as is 95.1 per cent of our freight service. We expect that with the equipment on order we will be able to completely Dieselize that freight service." In speaking of rolling stock, Mr. Warren stated that 70 per cent of the G.M. & O.'s freight cars had been bought since 1940, as compared to the 30 per cent average for Class I roads as a whole.

U.P. Subsidiary to Continue Operations in Three Parks

Under an agreement just concluded with the Department of the Interior, the Utah Parks Company, a subsidiary of the Union Pacific, will continue to operate concessions and tourist service at the north rim of Grand Canyon National Park, Arizona, and in Zion and Bryce Canyon National Parks, Utah. The new agreement, announced jointly by J. A. Krug, secretary of the interior, and George F. Ashby, president of the Union Pacific, will cover the period from the expiration of present contracts, January 1, 1949, to December 31, 1968. The agreement was the first to be concluded following a general review by the department of its overall park concession policy.

Following the signing of the agreement, Mr. Ashby announced that his road would spend "several hundred thousand dollars" to modernize and improve the park services.

November Employment

Railroad employment decreased 1.17 per cent—from 1,344,873 to 1,329,141—during the one-month period from mid-October to mid-November, and the mid-November total was 0.83 per cent below that of November, 1947, according to the preliminary summary prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-39 average, was 129.1 for November, as compared with 127.5 for October and 130.2 for November, 1947.

November employment was above that of November, 1947, in three groups—maintenance of way and structures, 3.06 per cent, executives, officials and staff assistants, 2.23 per cent, and maintenance of equipment and stores, 0.88 per cent. The decreases in the other four groups ranged from 0.84 per cent in the professional, clerical and general classification to 5.9 per cent for transportation employees, other than train, engine and yard.

As compared with October, there were decreases in three groups, ranging from 0.24 per cent in the professional, clerical and general classification to 4.45 per cent for the maintenance of way and structures group. The increases in the other four groups were all less than one per cent.

October Truck Traffic

Motor carriers reporting to American Trucking Associations transported in October 3,086,513 tons of freight, an increase of 2.2 per cent over the September total of 3,021,131 tons and an increase of 1.8 per cent over the 3,031,937 tons hauled in October, 1947. The A.T.A. index number, based on 1938-40 average monthly tonnage of the reporting carriers, reached 255 in October, and this supplanting September's 248 as the "all-time high."

The October figures, according to A.T.A., are based on comparable reports from 300 carriers in 38 states. Carriers in the Eastern district reported increases of 4.5 per cent above September and 2.8 per cent above October, 1947; carriers in the Southern region reported respective increases of 0.1 per cent and 2.4 per cent; and carriers in the Western district reported a decrease of 0.8 per cent below September and an increase of 0.1 per cent above October, 1947.

T. P. & W. Traffic Men Come Home for Conferences and Banquet

Traffic representatives of the Toledo, Peoria, & Western from 17 cities met at the road's headquarters at Peoria, Ill., on December 13 and 14 for a conference and study of the road and its traffic. At a banquet held the evening of the first day, they met with friends of the road, including shippers and members of the press. The principal speaker at the banquet was Elmer Layden, vice-president of the General American Transportation Company, Chicago, formerly a member of the famous "Four Horsemen" of Notre Dame football. President J. Russell Coulter of the T. P. & W. also addressed the gathering.

Air Line Chief Attacks C.A.B.

W. A. Patterson, president of United Air Lines, recently charged the Civil Aeronautics Board with gross inefficiency and declared that air transportation cannot continue under present regulations. In an address before the Chicago Association of Commerce and Industry, he asserted that the Interstate Commerce Commission has done a "better" job regulating the railroads than has the C.A.B. regulating the air lines. At least there is "black ink" in the railroad business, said the speaker.

Mr. Patterson asserted that air line transportation in distances less than 100 mi. is the "slowest and most expensive" type of transport, yet the C.A.B. has permitted 23 "hop, skip and jump" lines to enter the field since the end of the war. He charged the board with failure to formulate a plan for the development of a "sound and economical" transportation system, adding that policies of the C.A.B. have ruined air line credit. He said that the board's staff is without a knowledge of economics and suggested that expert transportation economists be retained.

November Revenues 8.1 Per Cent Above Those of November, 1947

From preliminary reports of 82 Class I railroads, representing 81.3 per cent of total operating revenues, the Association of American Railroads has estimated that the November gross amounted to $663,834,561, an increase of 8.1 per cent above the $614,163,027 reported for the same 1947 month. Estimated November freight revenues amounted to $552,558,142, as compared with $506,221,492, an increase of 9.2 per cent, while estimated passenger revenues totaled $61,330,623, as compared with $61,461,690, a decrease of 0.2 per cent. The estimate for all other revenues was $49,945,796, as compared with $46,479,845, an increase of 7.5 per cent.

Consider Proposing "Union Shop" Amendment to Railway Labor Act

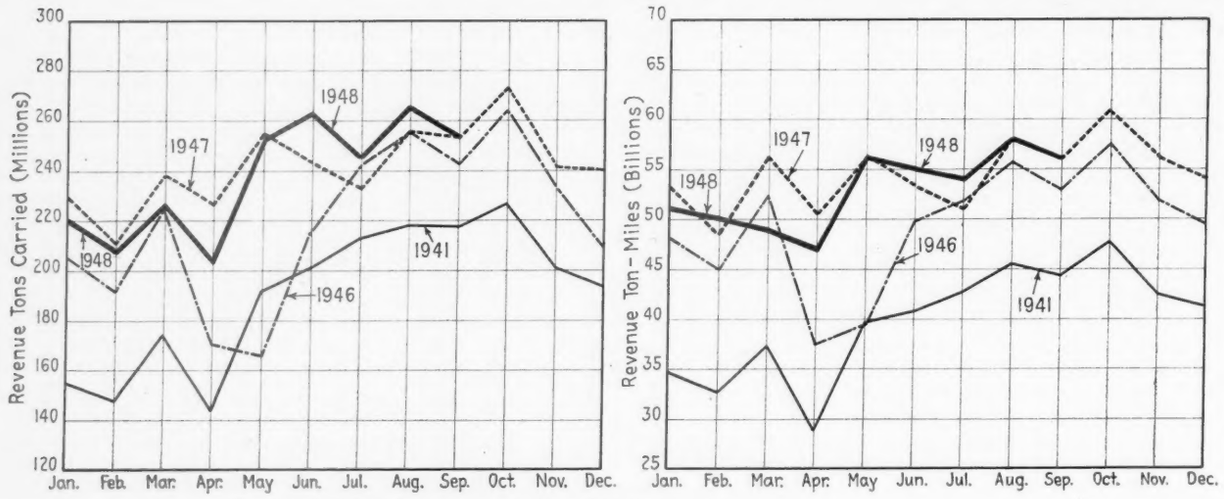
The Railway Labor Executives' Association has appointed a special committee to study the feasibility of amending the Railway Labor Act to sanction "union shop" agreements on the railroads. This was announced in the latest issue of "Labor," which went on to say that R.L.E.A. had "made it clear that no other amendments are to be considered at this time—contrary to stories in the newspapers that the association ordered 'full steam ahead' on general revision of the act."

Members of the committee are D. B. Robertson, George M. Harrison, Fred N. Aten and M. G. Schoch, presidents, respectively, of the Brotherhood of Locomotive Firemen and Enginemen, Brotherhood of Railway Clerks, Railway Employees Department, American Federation of Labor, and Railroad Yardmasters of America.

Freight Carloadings

Carloading figures for the week ended December 18 were not available when this issue went to press.

Loadings of revenue freight for the week ended December 11 totaled 783,276 cars, and the summary for that week as compiled by the Car Service



Revenue Tons and Revenue Ton-Miles—1948 Compared with 1941, 1946 and 1947

Division, Association of American Railroads, follows:

Revenue Freight Car Loadings
For the week ended Saturday, December 11

District	1948	1947	1946
Eastern ...	144,403	160,748	153,948
Allegheny .	162,745	176,168	172,455
Pocahontas .	65,849	73,774	67,533
Southern ..	129,972	139,307	140,872
Northwestern	83,980	92,247	90,095
Central Western	126,029	143,597	136,170
Southwestern	70,298	68,318	67,678
Total Western Districts .	280,307	304,162	293,943
Total All Roads ...	783,276	854,159	828,751
Commodities:			
Grain and grain products .	53,257	46,596	54,734
Livestock .	13,725	15,034	17,768
Coal	165,054	199,070	205,115
Coke	15,258	15,599	11,977
Forest products .	40,815	44,316	42,944
Ore	17,772	15,398	12,406
Merchandise l. c. l.	97,947	115,572	123,836
Miscellaneous	379,448	402,574	360,331
December 11	783,276	854,159	828,751
December 4.	804,183	878,588	729,084
November 27	723,090	792,331	660,911
November 20	857,492	902,662	806,593
November 13	871,677	878,283	917,124
Cumulative total 49 weeks	41,470,118	43,070,704	39,877,126

In Canada.—Carloadings for the week ended December 11 totaled 76,105 cars, as compared with 81,321 cars for the previous week, and 78,918 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars	Total Cars Rec'd from Loaded Connections
Totals for Canada:		
December 11, 1948 .	76,105	35,047
December 13, 1947 .	78,918	38,722
Cumulative totals for Canada:		
December 11, 1948 .	3,937,552	1,831,650
December 13, 1947 .	3,816,494	1,848,222

Accounting Division to Meet May 17-19 at Atlantic City

The 1949 annual meeting of the Accounting Division, Association of American Railroads, will be held at the Chalfonte-Haddon Hall Hotel, Atlantic City, N. J., from May 17 to 19, inclusive, according to a recent announcement by Chairman R. E. Connolly, vice-president of the Illinois Central. The announcement also noted that the customary "open house" meetings of the division's standing committees will be held on May 16, the day preceding the opening of the convention.

Faricy to Speak at Atlantic Board's Silver Anniversary

William T. Faricy, president of the Association of American Railroads, will be guest speaker at a dinner commemorating the silver anniversary of the Atlantic States Shippers Advisory Board in New York on January 14, 1949. The dinner, to be held at the Biltmore Hotel, is being sponsored jointly by the board and the Traffic Club of New York.

It will mark the close of the board's twenty-fifth annual and seventy-fifth regular meeting, the business sessions of which will be held at the Biltmore the same day. These sessions will be preceded on January 13 by the usual preliminary meetings of the board's committees.

Additional General News appears on page 64.

EQUIPMENT AND SUPPLIES

Equipment on Order

Class I railroads and railroad-owned and controlled refrigerator car companies had 96,705 new freight cars on order December 1, compared with 110,822 on order December 1, 1947, according to the Association of American Railroads. The December 1 orders of all railroads and private car lines totaled 106,405 cars.

This year's December 1 total for Class I roads and railroad-owned and controlled refrigerator car companies included 38,692 cars to be built in railroad shops and 58,013 to be built by contract builders; and the distribution by types of cars was as follows: Box cars, 18,711, including 18,561 plain and ventilated and 150 auto-box; hoppers, 43,264, including 4,269 covered hoppers; gondola, 21,852; flat, 4,170; refrigerator, 6,721; stock 700; miscellaneous, 1,287.

Class I roads on December 1 also had 1,693 locomotives on order, including 78 steam and 1,615 Diesel-electric. This compared with December 1, 1947, orders for 1,180 locomotives, including 33 steam, 4 electric, and 1,143 Diesel-electric.

The class I roads and affiliated refrigerator car lines placed 93,839 new freight cars in service in the first 11 months of this year, 7,779 of them having been installed in November. These compare, respectively, with 1947 figures of 54,306 and 7,998. This year's 11-months total included 37,601 box cars (36,337 plain and ventilated and 1,264 auto-box), 38,164 hoppers (including 1,651 covered hoppers), 10,876 gondolas, 5,998 refrigerator cars, 432 flat cars, 350 stock cars, and 418 miscellaneous cars.

Freight cars retired by the class I roads and their affiliated refrigerator car lines in this year's first 11 months totaled 72,534, including 6,597 retired in November. In the first 11 months of 1947, retirements totaled 65,588 cars.

Locomotives installed by class I roads during the 11 months totaled 1,316, including 80 steam, 4 electric, and 1,232 Diesel-electric. In the comparable 1947 period, 751 locomotives were installed, including 69 steam, 2 electric, and 680 Diesel-electric.

N. Y. C. Orders 123 Diesel Units and 5,350 Freight Cars

The New York Central System this week announced the placing of orders for 123 Diesel-electric locomotive units costing over $18,000,000. The locomotives—to be constructed by the Electro-Motive Division of the General Motors

Corporation, the American Locomotive Company, Fairbanks, Morse & Co. and the Lima-Hamilton Corporation — include seven 2,000-hp. road-freight, thirty 1,500-hp. road-freight, two 2,000-hp. transfer, fourteen 1,500-hp. road-switching, five 1,000-hp. road-switching, sixty-one 1,000-hp. switching and four 2,000-hp. passenger units. The two types f road-freight units, the road-switching units and forty of the 1,000-hp. switching units are for the New York Central; the Indiana Harbor Belt's portion includes the transfer units and the other twenty-six switching units. The passenger units are for the Pittsburgh & Lake Erie.

The New York Central System has also placed orders for 5,350 freight cars at a total cost of $28,405,000. Included in the orders are 3,150 55-ton hopper cars (2,000 of which will be built by Despatch Shops, 500 by the American Car & Foundry Co., and 650 by the Pressed Steel Car Company); 1,500 70-ton gondola cars (400 of which will be built by the Bethlehem Steel Company, 600 by the Greenville Steel Car Company, and 500 by the Pullman-Standard Car Manufacturing Company); 500 70-ton steel flat cars, to be built by General American Transportation Corporation, and 200 covered hopper cars to be constructed by Pullman-Standard. Delivery of these cars is expected in the second and third quarters of next year.

ORGANIZATIONS

Chicago Superintendents Form Business Organization

A total of 42 division or terminal superintendents or officers with like jurisdiction on railroads in the Chicago terminal area have organized the Chicago Railway Superintendent's Association. Believing that the world's largest railroad center requires the closest coordination among the railroads which compose it, the new association has undertaken to discuss operating matters which are of interest to all railroads in the area. Meetings will be held on the first Tuesday of each month and the organization will confine itself to a discussion of the business at the superintendents' level, with recommendations to be placed before the Chicago General Managers' Association. There will be no social activities.

The first subject considered by the association was the possibility of reducing the number of "hold" cars in the terminal area. President of the new association is Ralph O. Jensen, superintendent of the Minneapolis, St. Paul, & Saulte St. Marie; first vice-president, C. P. Fisher, superintendent of the Pennsylvania; and second vice-president, C. P. Poole, superintendent of the Belt railway.

The **American Association of Baggage Traffic Managers** has announced its officers for the coming year, as follow: President, C. M. Lyon of the Delaware, Lackawanna & Western, Hoboken, N. J.; vice-president, A. C. Yorke of the Pennsylvania, Philadelphia, Pa.; and secretary-treasurer, E. P. Soebbing of the Wabash, St. Louis, Mo.

The **Indianapolis Car Inspection Association** will hold a discussion of the new 1949 Book of Rules at its next meeting on January 3, 1949, at 7:00 p.m. in the Assembly Room of the Big Four building, Indianapolis, Ind.

SUPPLY TRADE

A. S. F. 1948 Net Almost Double That of Last Year

Sales of American Steel Foundries totaled $76,982,944 in the fiscal year ended on September 30, compared with $54,850,429 in the preceding fiscal year. Net income was $6,008,851, against $3,042,303. Sales to the railway industry accounted for $67,000,000 of the year's total.

Thomas Drever, president, in a letter to stockholders which accompanied the annual report, said that "as has traditionally been true, a major portion of our sales was for railway equipment parts furnished directly to railroads or to builders of freight cars, passenger cars and locomotives. We operated at less than capacity for a portion of the year because car builders were not able to take delivery of our products as rapidly as we could fill their orders. "We feel that the railroads will continue to place additional orders for equipment even though the existing backlog of orders in the car and locomotive shops is very substantial."

P. M. Miller, formerly a chemist and water inspector for the New York Central, has joined the **Dearborn Chemical Company,** Chicago, as a member of the railroad department's engineering and research staff.

James W. Moran has been elected president of the **Baker-Raulang Company** to succeed **E. J. Bartlett,** effective January 1, 1949. Mr. Moran joined the company in 1911 and has served concurrently as secretary, treasurer and a director since 1934. Mr. Bartlett, who has been with Baker-Raulang for 37 years, will continue as a director and will serve the management in an advisory capacity.

Joseph T. Simpson has been elected president of the **Harrisburg Steel** Corporation, to succeed **Wilbert Wear,** resigned.

OBITUARY

Howard E. Stoll, manager of railroad sales for the Bethlehem Steel Company from 1928 until his retirement in September, 1943, died on December 14 at his home in Bethlehem, Pa.

CAR SERVICE

The Car Service Division, Association of American Railroads, on December 21, placed an embargo against all freight intended for export or coastal shipment through the port of Philadelphia, Pa. The A.A.R. announcement said that the embargo was placed at the request of the Office of Defense Transportation, and that it was necessary because of a strike of Philadelphia longshoremen.

Second Revised I.C.C. Service Order No. 822 has been reissued as Third Revised Service Order No. 822. The new order, effective from January 1, 1949, until June 30, 1949, unless otherwise modified, will authorize the substitution of two or three refrigerator cars in lieu of one box car ordered for westbound shipments to points in the state of Washington, and to Portland, Ore.

I.C.C. Service Order No. 760-A, effective December 20, vacated Service Order No. 760, which was issued in June, 1947, to authorize the Chicago, Burlington & Quincy to operate over a Chicago Great Western line after parts of the Burlington's Des Moines, Iowa,-Osceola branch had been washed out by floods. The commission recently approved the Burlington's proposal to continue on a permanent basis the operating arrangements covered by the service order (see *Railway Age* of October 30, page 102).

The I.C.C. has extended several service orders which had been scheduled to expire during December. The orders, extending amendments, and new expiration dates are as follows:

No. 68 which prohibits the furnishing of two small cars for a larger car ordered, and suspends tariff rules which permit application of minimum weights lower than those provided for the car used. Amendment No. 20—July 15, 1949.

No. 87 which modifies the free time allowed on tidewater coal and coal products at North Atlantic Ports. Amendment No. 2—July 15, 1949.

No. 95 which makes the manager of the Refrigerator Car Section, Car Service Division, A.A.R., an agent of the I.C.C. for the purpose of controlling the distribution and use of refrigerator cars. Amendment No. 10—July 15, 1949.

No. 107 which directs the Car Service Division, A.A.R., to control the movement into Mexico of cars owned by U. S. railroads. Amendment No. 6—July 2, 1949.

No. 129 which suspends the operation of Section 2, Rule 32, Consolidated Freight Classification, insofar as it requires payment for body ice taken from refrigerator cars by consignees. Amendment No. 7—March 12, 1949.

No. 817 which authorizes the use of giant refrigerator cars at freight rates applicable to the same commodities loaded in standard reefers. Amendment No. 3—July 10, 1949.

No. 828 which authorizes the use of S.F.R.D. and P.F.E. refrigerator cars to transport cotton in California and Arizona—provided the cars are not suitable for loading with commodities requiring protective service. Amendment No. 1—April 5, 1949.

The Office of Defense Transportation

has issued Amendment 14 to Special Direction ODT 18A-1, making changes in loading requirements on some of the commodities covered by the direction. The changes are as follows:

Item 845 requiring the loading of roofing materials to a weight not less than 60,000 lb., and Item 846 requiring the loading of sidings to a weight not less than 40,000 lb. are canceled and the following new item is added: 847. *Roofings, sidings, or shingles.* Composition or prepared, asphalt or asbestos, straight or mixed carloads, shall be loaded to a weight not less than 45,000 lb.

Item 740 relating to the loading of paper, groundwood, newsprint, and rotogravure; fibre content consisting of not less than 60 per cent groundwood in rolls 45 in. to but not including 55 in. in width, is amended to eliminate the requirement of certain second tier loading.

In Item 900 relating to straight carload shipments of petroleum or certain petroleum products in packages, in fibre cartons, the loading requirements are reduced from 55,000 lb. to 50,000 lb., and in Item 905 relating to mixed carload shipments of petroleum or petroleum products packed in drums, cartons, or buckets, the loading requirements are reduced from 45,000 lb. to 35,000 lb.

The change made in Item 740 became effective December 15; all other changes became effective December 11.

ABANDONMENTS

North Shore Seeks to Abandon Its Shore Line Branch

The Chicago North Shore & Milwaukee on December 16 filed a petition with the Illinois Commerce Commission seeking authority to abandon operations on its shore line between Howard street, Chicago, and North Chicago Junction, 23.42 mi. At a meeting on the previous day, the road's stockholders voted unanimously in favor of abandoning the line and authorized the board of directors to take action toward the sale or other disposition of the right-of-way, rail, equipment and other properties should the commission grant the petition.

J. H. M. Clinch, North Shore president, pointed out to the stockholders that the route in question has been and still is operating at an annual deficit in excess of $600,000, as was reported in *Railway Age* of November 13, page 63. Since June 30 of this year the branch line has been operating on a "test" basis, during which time the state commission has studied the results of fare increases (see *Railway Age* of July 3, page 44).

Early in 1948 the North Shore organized a subsidiary bus company, which has petitioned the commission for authority to operate buses over a route paralleling much of the Shore Line route. The railroad is of the opinion that the operation of such bus service, together with trains of the neighboring Chicago & North Western, will provide efficient and adequate transportation for all communities now served by the Shore Line route.

Chicago & North Western-Chicago, Rock Island & Pacific.—Examiner H. J. Blond has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize these roads to abandon a jointly-owned connecting track at Carnforth, Iowa. The 1,236-ft. track has been used by the two roads to interchange carload traffic, and its abandonment is opposed by the Iowa State Commerce Commission and other protestants. In recommending favorable action on the application, the examiner said that shippers using the line "will not be denied transportation service as other interchange points are available at reasonably short distances west, south, and east of Carnforth.

FINANCIAL

Investment House Publications

[The surveys listed herein are, for the most part, prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers but assumes no responsibility for facts or opinions they may contain bearing upon the attractiveness of specific securities.]

Abbott, Proctor & Paine, 911 East Main St., Richmond 14, Va.

Chesapeake & Ohio — Norfolk & Western — Virginian (November).

Baker, Weeks & Harden, One Wall St., New York 5, N. Y.

Net Effect of a Ten Cent Across-the-Board Wage Increase on the Class I Carriers (November 22).

Chesapeake & Ohio (Highlights of an address by Walter J. Tuohy before the Society of Customers Brokers and the New York Society of Security Analysts, December 3).

1948 Railroad Earnings Estimates (December 8).

Railroad Estimates for 1949 (December 15).

Wabash Railroad (Highlights of an address by W. K. Atkinson before the New York Society of Security Analysts, November 19).

Richard J. Buck & Co., 39 Broadway, New York 6, N. Y.

Chicago Great Western

Merrill Lynch, Pierce, Fenner & Beane, 70 Pine St., New York 5, N. Y.

Security and Industry Survey; An Analytical Guide for Investors, issued quarterly (November).

Smith, Barney & Co., 14 Wall St., New York 5, N. Y.

Denver & Rio Grande Western (Railroad Bulletin No. 17, December 6).

Railroad Stocks; Year-End Switches (Railroad Bulletin No. 18, December 6).

Vilas & Hickey, 49 Wall St., New York 5, N. Y.

Chicago, Rock Island & Pacific (December 10).

St. Louis-San Francisco (November 26).

Chicago, Burlington & Quincy.—*Dividend.*—This road has declared a dividend of $4 a share on the capital stock, payable December 29 to stockholders of record December 21. The previous payment on this issue was $3 a share on June 28.

Delaware Lackawanna & Western.—*Increases Nickel Plate Holdings.*—This road has reported to the Securities and Exchange Commission that in November it purchased 10,600 shares of the common stock of the New York, Chicago & St. Louis, thereby increasing its holdings of that issue to 60,000 shares.

Paterson & Hudson River.—*Dividend.*—This road has declared a dividend of $1.25 a share on the common stock, payable January 15 to stockholders of record December 31. The previous payment on this issue was $1.12½ on July 15.

New Securities

Application has been filed with Division 4, Interstate Commerce Commission, by:

Chicago, Burlington & Quincy.—To asume liability for $3,210,000 of equipment trust certificates to finance in part the acquisition of 18 Diesel-electric locomotives from the Electro-Motive Division of General Motors Corporation at a total cost of $4,318,500. One of the locomotives, costing $483,000, will be a 4,000-hp. road passenger locomotive; 8, costing $241,500 each, will be 2,000-hp. road passenger locomotives; and the remaining 9, costing $211,500 each, will be 2,000-hp. road switchers. The certificates would be sold on the basis of competitive bids with the interest rate specified in such bids. They would be dated January 1, 1949, and would mature in 30 semi-annual installments of $107,000 each, beginning July 1, 1949.

Chicago, Milwaukee, St. Paul & Pacific.—To assume liability for $4,540,000 of equipment trust certificates, series GG, to finance in part the acquisition of 30 Diesel-electric locomotives at a total cost of $6,073,108. The locomotives were listed in the application as follows:

	Description and Builder	Estimated Unit Cost
10	3,000-hp. Diesel-electric freight locomotives, each consisting of a lead unit and a booster unit (Electro-Motive Division, General Motors Corporation)	$337,083
2	3,000-hp. Diesel-electric freight locomotives, each consisting of a lead unit and a booster unit (Electro-Motive)	333,375
4	1,500-hp. Diesel-electric road switching locomotives (American Locomotive Company)	146,731
8	1,000-hp. Diesel-electric switching locomotives (American)	103,773
6	1,000-hp. Diesel-electric switching locomotives (Fairbanks, Morse & Co.)	103,069

The certificates would be sold on the basis of competitive bids with the interest rate determined by such bids. They would be dated January 1, 1949, and would mature in 20 semi-annual

installments of $227,000 each beginning July 1, 1949.

Division 4 of the I.C.C. has **authorized: Erie.**—To assume liability for $4,850,000 of equipment trust certificates to finance in part the acquisition of 6 Diesel-electric locomotives and 1,100 freight cars (see *Railway Age* of December 4, page 70). The certificates will be dated December 15, and will mature in 10 annual installments of $485,000 each, beginning December 15, 1949. The report also approves a selling price of 99.21 for the issue with a 2¼ per cent interest rate—the bid of the First Boston Corporation and associates which will make the average annual interest cost approximately 2.41 per cent.

Dividends Declared

Canadian Pacific.—4% non-cumulative preferred, 2%, semiannually, payable February 1, 1949, to holders of record December 31.

Chicago, Burlington & Quincy.—year end, $4.00, payable December 29 to holders of record December 21.

Gulf, Mobile & Ohio.—50¢, payable January 15, 1949, to holders of record December 27.

Northern Pacific.—(increased) $1.50, payable February 1, 1949, to holders of record January 3, 1949.

Providence & Worcester.—$2.50, payable December 31 to holders of record December 13.

Richmond, Fredericksburg & Potomac.—common, $3.00; extra, $4.00; 7% guaranteed (extra), $3.00 6% guaranteed (extra), $4.00; all payable December 29 to holders of record December 22.

Savannah & Atlanta.—5% preferred, $1.25, quaterly, payable January 1 to holders of record December 15.

Average Prices Stocks and Bonds

	Dec. 20	Last week	Last year
Average price of 20 representative railway stocks	43.17	44.10	48.18
Average price of 20 representative railway bonds	87.75	87.73	85.66

CONSTRUCTION

Atchison, Topeka & Santa Fe.—This road has awarded a contract to J. A. Lundgren & Son, Topeka, Kan., for the construction of an addition to the Santa Fe coach paint shop in that city.

RAILWAY OFFICERS

EXECUTIVE

W. J. Sullivan, chief clerk—president's office, Illinois Terminal at St. Louis, Mo., has been promoted to executive assistant at that point.

Rex T. Kearney, president and general manager of the Tidewater Southern at Modesto, Cal., will become president and general manager of the Sacramento Northern (both roads are part of Western Pacific) at Sacramento, Cal., on January 1, 1949, succeeding **Harry A. Mitchell** as president and **Walter H. Evans** as general manager. Mr. Mitchell will become president of the W. P. at San Francisco, Cal., on January 1, 1949. Mr. Evans, vice-president and general manager of the S. N., will retire on December 31, after 34 years of service.

William E. Zellner, whose appointment as assistant to vice-president of operation and maintenance of the Reading at Philadelphia, Pa., was reported in the *Railway Age* of December 11, was born on October 19, 1906, at Philadelphia. After attending Germantown high school and Palmer business school, Mr. Zellner entered railroad service on April 1, 1926, as clerk in the general claim department of the Reading at Philadelphia, later transferring to the

William E. Zellner

office of the vice-president. He became clerk in the secretary's office on May 6, 1929, transferring to the president's office on October 1, 1936, and to the vice-president's office on January 1, 1945. Mr. Zellner was promoted to chief clerk in the vice-president's office on September 1, 1945, which position he held until his recent appointment as assistant to vice-president of operation and maintenance.

J. H. M. Clinch, acting president of the Chicago, North Shore & Milwaukee at Chicago, has been elected president of the company.

Harry A. Mitchell, vice-president and general manager of the Western Pacific at San Francisco, Cal., has been elected president of the railroad, effective on January 1, 1949, succeeding **Charles Elsey,** who will retire on December 31. This impending change was first announced in the *Railway Age* of September 11 and described in detail in the issue of October 9, page 55. **Harry C. Munson,** assistant vice-president—operation, will succeed Mr. Mitchell. **Gilbert H. Kneiss** has been appointed assistant to president—public relations, a newly-created position. Photos and biographical sketches of Messrs. Mitchell and Elsey appeared in the October 9 issue of *Railway Age,* and that of Mr. Munson appeared in the December 11 issue in connection with his recent appointment as assistant vice-president—operation.

Frank J. Berry, assistant vice-president of the Northern Pacific at St. Paul, Minn., will become vice-president in charge of traffic at that point on January 1, 1949, succeeding **J. G. Morrison,** who will retire after 55 years of railroad service. A photograph and biographical sketch of Mr. Berry appeared in the *Railway Age* of November 20, in connection with his promotion to assistant vice-president at St. Paul.

FINANCIAL, LEGAL and ACCOUNTING

Oscar Lindstrand, whose promotion to assistant general counsel of the Pennsylvania at Chicago, was reported in the *Railway Age* of November 27, was born on February 16, 1894, at Evanston, Ill. Mr. Lindstrand was admitted to the Illinois State Bar in 1920, and received from the Chicago-Kent College of Law the degrees of Bachelor of Laws in

Oscar Lindstrand

1921 and Master of Laws degree in 1922. Prior to his employment by the Pennsylvania in 1931, as assistant solicitor at Chicago, he was associated with a law firm which served as district solicitors for the railroad. Mr. Lindstrand was appointed assistant general solicitor in March, 1943, which post he held at the time of his recent advancement.

T. A. Casey, statistician in the vice-president's office of the Canadian Pacific at Montreal, Que., has been appointed tax and real estate agent at Winnipeg, Man., succeeding **Alexander Kerns,** who has retired after 36 years of service.

C. A. Glaser, supervisor of contracts and insurance of the Delaware, Lackawanna & Western, has been promoted to auditor of disbursements, with headquarters at New York, succeeding **J. F.**

Jeckel, who retired on December 1, after 50 years of service with this road. **J. C. Castle** has been promoted to supervisor of contracts and insurance, to succeed Mr. Glaser.

The land and tax agent's office of the Central of Georgia at Savannah, Ga., has been reorganized into a separate department, with **C. B. Niehaus** as its head. Mr. Niehaus has been in charge of this office for 23 years. **J. W. Adams** and **Joseph Pape** have been promoted to assistant land agent and assistant tax agent, respectively.

William L. Grubbs, assistant general solicitor of the Louisville & Nashville at Louisville, Ky., will become general counsel on January 1, 1949, and **H. T. Lively,** general attorney, will become general solicitor. **Sidney Smith,** vice-president and general counsel, will relinquish his duties as general counsel on December 31.

William H. Hoadley, assistant secretary and assistant treasurer of the Chicago, North Shore & Milwaukee at Chicago, has been elected secretary and treasurer, succeeding to a portion of the duties formerly performed by **J. H. M. Clinch,** who has been elected president of the road. **Lee H. Abegg** has been elected assistant secretary and assistant treasurer, and **H. A. Turley** has been elected assistant secretary.

OPERATING

Edward B. Hunter, whose appointment as superintendent of the New York, Chicago & St. Louis at Frankfort, Ind., was reported in the *Railway Age* of November 27, was born at New York, on September 25, 1903. After leaving Northwestern University in 1927, he entered railway service with the Nickel

Edward B. Hunter

Plate at Chicago, as an apprentice in the transportation department, becoming an inspector in that department in 1930. From 1933 to 1938, he served as yardmaster at Fostoria, Ohio, and as night general yardmaster at Fort Wayne, Ind., subsequently advancing to general yardmaster at the latter point in December, 1938. Mr. Hunter was appointed terminal supervisor of the Nickel Plate at Cleveland, Ohio, in June, 1941, and later held the position of trainmaster successively from September, 1943, until November, 1946, at Delphos, Ohio, Fort Wayne, and Conneaut, Ohio. He was promoted to assistant to general manager at Cleveland in October, 1946, and was holding that position at the time of his recent appointment as superintendent at Frankfort.

W. J. Whalen, whose appointment as assistant general manager, Eastern Lines, Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of November 6, was born on March 22, 1893, at Lansing, Iowa. He began his railroad service in 1906 as a construction gang water boy on the Milwaukee, advancing in 1909 to timekeeper for a maintenance of way gang, in 1911 to assistant foreman of a maintenance of way and construction gang, and in 1915 to foreman. During the years 1916-1923, he served as roadmaster at

W. J. Whalen

McGregor, Iowa, Dubuque, and Savanna, Ill. Mr. Whalen next served as trainmaster and roadmaster at Joliet, Ill., and was transferred to Montevideo, Minn., in 1926 as trainmaster. He later held that position at various points prior to his advancement in 1934 to assistant superintendent at Perry, Iowa. He was promoted to superintendent at Terre Haute, Ind., in 1937, and transferred to Savanna in 1940 and to La Crosse, Wis., in 1942. Mr. Whalen was further advanced in June, 1946, to general superintendent at Milwaukee, Wis., where he was located at the time of his recent appointment.

E. S. Garver, assistant to superintendent transportation of the Western Maryland, has been appointed superintendent transportation, with headquarters as before at Hagerstown, Md., succeeding **L. H. Meredith,** who will retire on January 1, 1949, at his own request, after 50 years of service with this road.

TRAFFIC

F. H. Dowling, whose promotion to assistant freight traffic manager of the Missouri-Kansas-Texas at Kansas City, Mo., was reported in the *Railway Age* of November 27, was born on May 22, 1898, at St. Louis, Mo. He entered railroad service in 1912 as a messenger with the St. Louis Southwestern at St. Louis, and subsequently held various other positions with that road. Mr. Dowling joined the Wabash in

F. H. Dowling

1920 as revising clerk, returning in the following year to the Cotton Belt as rate clerk. In 1924 he entered the service of the M-K-T as soliciting freight agent at St. Louis, advancing to general agent at Minneapolis, Minn., in 1929. He was further promoted on August 1, 1940, to the post of general freight agent at Kansas City, which position he held at the time of his recent appointment.

A. C. Stenberg, traffic manager of the Duluth, South Shore & Atlantic at Marquette, Mich., has been appointed general traffic manager at that point. The position formerly held by Mr. Stenberg has been abolished.

Ray E. Dugan, assistant industrial commissioner of the Chicago, Rock Island & Pacific at Chicago, has been appointed industrial agent with headquarters at that point.

A. L. Rawlinson, European passenger manager of the Canadian Pacific at London, England, for the past two years, will retire on January 1, 1949, after 36 years with the company in the United Kingdom and Europe. He will be succeeded by **George A. Hobbs,** general agent in London. **E. S. Spackman,** assistant to the general passenger agent at London, will replace Mr. Hobbs.

The Western Pacific has announced the following changes in its traffic department: **Charles J. Fischer,** assistant general agent at Salt Lake City, Utah, promoted to general agent at Klamath Falls, Ore., effective on January 1, suc-

News Department continued on next left-hand page

PROBABLY no railroad man need be told that every carload of C & O's record-breaking tonnage moved behind steam.

Nor will it surprise many that almost every ton made most of its miles behind Lima-built locomotives.

The significant point is this: Here is an example of what *modern* steam power can do. It is a special example, to be sure, but a concrete one. Those are real locomotives, making real miles, moving real tonnage and lots of it. Almost to an engine, they are modern—modern from the rims up, from the pilots back.

Could any other type of power—including older steam locomotives—have equalled C & O's cost per ton-mile?

We doubt it. That's why we say there *is* a place for steam—and in this place, the modern steam locomotive can do, and is doing, an outstanding job.
It's worth thinking about.


C. & O. Sets All-Time Record, Ships 90 Million Tons of Coal

BY ROBERT J. BOWMAN

Experiencing the greatest year of its history in 1947, the Chesapeake and Ohio Railway Co. anticipates an even larger volume of busi-

record will be bettered with the completion, in the coming year, of two branch lines which will open up new coal areas. Many new mines, along with widespread mechanization of existing mines, should increase materially the coal tonnage

this is steam at work

LIMA HAMILTON CORPORATION

DIVISIONS: *Lima, Ohio* — Lima Locomotive Works Division: Lima Shovel and Crane Division. *Hamilton, Ohio* — Hooven, Owens, Rentschler Co.; Niles Tool Works Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

ceeding **Robert R. Taylor,** who will be transferred to Stockton, Cal.; **Jasper H. Mettler,** general agent at Stockton, to retire on December 31 after 39 years of service; and **Carl R. Nipper,** traffic representative at San Jose, Cal., appointed general agent at that point, succeeding the late **Martin C. Kidd.**

P. W. Phillips has been appointed assistant general freight agent of the Chesapeake & Ohio at Richmond, Va., succeeding **A. P. Hecker,** retired.

William Robson, passenger traffic representative of the Canadian Pacific, has been appointed general agent, with headquarters as before at Montreal, Que., to take charge of the city ticket office and oversee passenger solicitation work.

W. R. Wilson, commercial agent of the Central of Georgia at Albany, Ga., has been promoted to the newly-established position of general agent at Cleveland, Ohio. **A. O. Fredeman,** commercial agent at Chicago, has been appointed general agent at Cincinnati, Ohio, succeeding **J. W. Jones,** Northern traffic agent, who will retire on January 1, 1949, after 47 years of service with this road.

Harry J. Nelson, general agent of the Illinois Central at San Francisco, Cal., will be advanced to general western traffic manager at that point on January 1, 1949, succeeding **William D. Stubbs,** who will retire after more than 50 years of railroad service. **Paul J. Snapp,** general agent at Portland, Ore., will be transferred to San Francisco. He is to be replaced at Portland by **William F. Blye.**

William Horder, whose retirement as general passenger agent of the Canadian Pacific at Winnipeg, Man., was reported in the *Railway Age* of December 11, was born at Montreal, Que., on November 10, 1882. He entered railway service in June, 1900, as a clerk in the passenger department of the C. P., at Montreal, serving successively until August, 1922, as clerk, excursion clerk and chief clerk in that department. In 1922 he was appointed assistant district passenger agent of the C. P. at Toronto, Ont., becoming assistant general passenger agent at Winnipeg in August, 1926. Mr. Horder was advanced to general passenger agent at that point in December, 1935, and was serving in that position at the time of his retirement.

Austin Hildreth, assistant general freight agent of the Southern, will be promoted to assistant to freight traffic manager, with headquarters as before at Cincinnati, Ohio, effective January 1, 1949. **Maxwell P. Lewis,** commercial agent, will become assistant general freight agent, with headquarters as before at Cincinnati. **Richard W. Ellerman,** assistant general freight agent at Atlanta, Ga., will be promoted to general freight agent at Cincinnati, succeeding **Arthur W. Gill,** who will retire on January 1, after more than 43 years of service. **Verner C. Nygaard,** chief clerk in the general freight office at Atlanta, will be promoted to assistant general freight agent (divisions), with the same headquarters, succeeding **Marion F. Dukes, Jr.,** who becomes assistant general freight agent (rates) at Atlanta. **Edward M. Roscoe,** district freight agent at Valdosta, Ga., becomes general agent at Gastonia, N. C., succeeding **Gordon W. Lindsay,** who will become assistant general freight agent at Cincinnati, replacing **William C. Richardson,** who will succeed to the duties of **Thomas J. Logan,** assistant general freight agent at Cincinnati, who will retire on January 1, after more than 48 years of service with this system. **Robert L. Crawford, Jr.,** commercial agent at Chattanooga, Tenn., will be promoted to district freight and passenger agent at New York, succeeding **L. Duncan Stokes,** whose promotion to division freight agent at Greenville, S. C., was announced in the *Railway Age* of December 4, page 1088.

MECHANICAL

Frank D. Sineath, who has been master mechanic of the Atlantic Coast Line at Florence, S. C., since September 1, has been appointed assistant to chief of motive power and equipment at Wilmington, N. C. **Herbert M. Kyle,** general foreman at Florence, has been appointed master mechanic there.

Samuel A. Wilcox, assistant master mechanic of the Monongahela Connecting, has been promoted to master car builder, with headquarters at Pittsburgh, Pa. Mr. Wilcox entered the service of the Monongahela Connecting at Pittsburgh in 1946, after having served as chief of shops of the River Terminal railway in Cleveland, Ohio.

PURCHASES and STORES

Clarence S. Burt, manager of the forest products bureau of the Illinois Central at Memphis, Tenn., has been appointed assistant to the director of purchases and stores at Chicago, succeeding **Gordon P. Bier,** whose death was reported in the *Railway Age* of December 18. **Robert E. Godley,** supervisor of scrap and reclamation at Chicago, has been appointed assistant manager of stores at that point, succeeding **George D. Tombs,** who has replaced Mr. Burt. **Charles L. Foust, Jr.,** general foreman of the reclamation shop, has been appointed to succeed Mr. Godley.

ENGINEERING and SIGNALING

L. A. Loggins, assistant to chief engineer of the Texas & New Orleans (part of the Southern Pacific Lines) at Houston, Tex., has been promoted to assistant chief engineer at that point. He is succeeded by **B. M. Stephens,** architectural engineer. Other engineering changes are as follows: **R. B. Carruthers,** bridge engineer, advanced to assistant supervisor of structures; **J. N. Fuller,** senior assistant engineer, appointed principal assistant engineer; **H. H. Blair,** chief draftsman, appointed also architectural engineer; **J. M. Lowry,** bridge and building inspector, promoted to bridge engineer and inspector; and **B. F. Biaggini,** senior assistant engineer (Houston division), advanced to senior assistant engineer.

S. Withington, chief electrical engineer of the New York, New Haven & Hartford at New Haven, Conn., has been appointed engineering assistant. **H. F. Brown,** engineer electric traction at New Haven, has been appointed electrical engineer, reporting to the chief engineer. Mr. Brown will be responsible for the design and specifications of electric traction power supply and distribution system, and power supply and distribution for buildings and other structures. **G. H. Heinze,** electrical supervisor, will report to the engineer maintenance of way and have general supervision over electrical construction and maintenance of electrical facilities except traction system. The positions of chief electrical engineer and engineer electric traction formerly held by Mr. Withington and Mr. Brown, have been discontinued.

Frank R. Woolford, assistant superintendent of the Missouri Pacific Lines at Nevada, Mo., has been appointed engineer maintenance of way and structures of the Western Pacific at San Francisco, Cal., effective on January 1, 1949, succeeding **Claude A. Combs,** who will retire on December 31 after more than 24 years of service with the W. P.

SPECIAL

Peter G. Edwards has been appointed chief of personnel of the Monongahela Connecting, with headquarters at Pittsburgh, Pa. Mr. Edwards was formerly with the vice-president of operations of the New York Central at Chicago, and his most recent position was as an assistant to George M. Harrison, grand president of the Brotherhood of Railway Clerks. Mr. Edwards served as a captain in the Transportation Corps of the United States Army for four years.

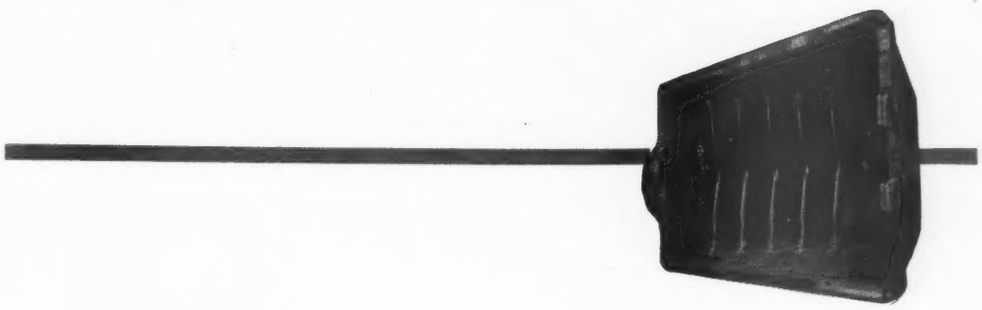
OBITUARY

Martin C. Kidd, general agent of the Western Pacific at San Jose, Cal., died on December 9.

W. D. Moore, claim agent of the Clinchfield at Erwin, Tenn., died in that city on December 20.

Louis R. Beck, assistant auditor of passenger traffic of the Pennsylvania system, with headquarters at Philadelphia, Pa., died on December 13 at his home in that city.

IN MODERNIZING STEAM MOTIVE POWER



MANY railroads are installing Security Circulators in their existing locomotives to increase steaming efficiency and to decrease boiler maintenance.

Steaming performance is improved because the additional evaporating surface aids the locomotive to get up steam more rapidly, while the quickened flow of water from the side water-legs (through the Circulators) over the crown sheet helps to maintain maximum boiler output.

Boiler maintenance is reduced because the Security Circulators definitely lessen honeycombing, flue plugging and cinder cutting. They also furnish an ideal support for a 100% brick arch and prolong the life of the brick.

SECURITY CIRCULATOR DIVISION

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAYS

Compiled from 127 monthly reports of revenues and expenses representing 131 Class I steam railways.

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF SEPTEMBER 1948 AND 1947

Item	United States		Eastern District		Southern District		Western District	
	1948	1947	1948	1947	1948	1947	1948	1947
Miles of road operated at close of month	226,752	227,326	53,491	53,728	46,129	46,155	127,132	127,443
Revenues:								
Freight	$696,795,413	$593,265,306	$262,114,162	$218,219,635	$135,501,081	$117,730,146	$299,180,170	$257,315,525
Passenger	83,602,710	80,369,514	43,081,432	40,971,988	11,744,272	12,213,514	28,777,006	27,184,012
Mail	16,643,889	11,777,889	6,084,725	4,670,878	2,792,465	1,987,917	7,766,699	5,119,094
Express	11,505,687	7,413,111	4,645,386	1,745,090	1,808,273	1,144,438	5,052,028	4,523,583
All other operating revenues	36,225,892	34,260,718	16,007,653	14,724,247	5,638,531	5,516,329	14,579,708	14,020,142
Railway operating revenues	844,773,591	727,086,538	331,333,358	280,331,838	157,484,622	138,592,344	355,955,611	308,162,356
Expenses:								
Maintenance of way and structures	118,982,911	111,522,616	46,112,575	42,479,619	23,963,904	23,195,890	48,906,432	45,856,107
Depreciation	10,399,149	10,178,578	4,398,373	4,331,364	1,813,323	1,752,568	4,187,453	4,094,706
Retirements	1,963,304	2,681,983	166,564	390,807	625,311	341,128	1,171,409	1,950,048
Deferred maintenance	*225,284	*702,493	*15,610	*13,255	*51,500	*19,044	*158,174	*670,194
Amortization of defense projects	146,694	112,954	12,105	8,371	43,273	35,006	91,316	69,577
Equalization	*1,152,874	*2,761,483	*841,116	*1,449,180	*490,582	33,168	178,824	*1,345,471
All other	107,851,922	102,013,077	42,392,259	39,202,512	22,024,059	21,053,124	43,435,604	41,757,441
Maintenance of equipment	141,408,588	134,927,027	59,885,552	57,852,531	27,897,672	26,725,809	53,625,364	50,348,687
Depreciation	21,417,077	19,315,456	8,425,962	7,606,729	4,734,973	4,332,974	8,256,142	7,375,753
Retirements	*74,014	*85,154	*14,589	*9,062	*57,241	*8,623	*2,184	*67,469
Deferred maintenance and major repairs	*192,883	*294,657	*65,000	42,000	*64,154	*58,941	*63,729	*277,716
Amortization of defense projects	1,197,391	1,223,959	422,642	453,833	238,923	238,280	535,826	531,846
Equalization	*309,100	173,773	*104,683	18,219	*202,615	31,374	*1,802	124,180
All other	119,370,117	114,593,650	51,221,220	49,740,812	23,247,786	22,190,745	44,901,111	42,662,093
Traffic	15,810,403	15,047,291	5,419,290	5,100,735	3,385,302	3,322,981	7,005,811	6,623,575
Transportation—Rail line	311,394,767	294,644,323	130,242,688	125,447,155	56,415,927	53,293,919	124,735,172	115,920,249
Miscellaneous operations	11,041,332	11,500,018	4,169,634	4,272,118	1,455,128	1,554,649	5,413,520	5,673,251
General	22,355,417	21,098,938	8,385,074	8,119,841	4,872,028	4,556,985	9,098,315	8,422,142
Railway operating expenses	620,993,418	588,760,243	254,214,843	243,232,999	117,989,961	112,653,233	248,788,614	232,844,011
Net revenue from railway operations	223,780,173	138,326,295	77,118,515	37,038,839	39,494,661	25,939,111	107,166,997	75,318,345
Railway tax accruals	98,413,503	75,954,819	31,475,169	23,749,221	20,166,807	16,253,903	46,771,527	35,951,692
Pay-roll taxes	20,873,003	31,137,293	8,648,568	12,973,877	3,739,520	5,993,511	8,484,915	12,163,905
Federal income taxes	50,287,615	20,381,450	12,447,732	1,752,101	10,745,177	5,270,980	27,094,706	13,355,389
All other taxes	27,252,885	24,436,076	10,378,869	9,020,243	5,682,110	4,983,435	11,191,903	10,432,398
Railway operating income	125,366,670	62,371,476	45,643,343	13,319,618	19,327,854	9,685,205	60,395,470	39,366,653
Equipment rents—Dr. balance	11,341,827	10,732,202	4,492,338	4,521,283	*2,341,228	*1,803,643	9,190,717	8,011 559
Joint facility rent—Dr. balance	3,176,272	3,324,543	1,591,933	1,604,838	434,124	478,479	1,150,185	1,241,226
Net railway operating income	110,848,571	48,314,731	39,559,045	7,193,494	21,234,958	11,007,369	50,054,538	30,113,868
Ratio of expenses to revenues (per cent)	73.5	81.0	76.7	86.8	74.9	81.3	69.9	75.6

FOR THE NINE MONTHS ENDED WITH SEPTEMBER 1948 AND 1947

Item	United States		Eastern District		Southern District		Western District	
	1948	1947	1948	1947	1948	1947	1948	1947
Miles of road operated at close of month	227,081	227,467	53,628	53,731	46,145	46,189	127,308	127,547
Revenues:								
Freight	$5,898,379,963	$5,124,606,001	$2,250,034,688	$1,946,692,698	$1,213,472,402	$1,039,705,727	$2,434,872,873	$2,108,207,576
Passenger	724,095,693	725,198,859	357,884,835	382,937,855	113,838,319	118,168,240	242,372,509	244,032,764
Mail	139,697,693	102,334,014	50,341,957	38,747,976	25,053,683	18,191,351	64,302,073	45,394,687
Express	89,941,672	84,565,364	30,083,107	24,994,994	15,365,120	15,118,199	44,493,445	44,452,171
All other operating revenues	309,460,612	294,936,412	136,599,061	129,805,889	51,380,045	49,843,229	121,481,506	115,287,294
Railway operating revenues	7 161,575,633	6,331,640,650	2,834,943,678	2,503,209,412	1,419,109,549	1,271,026,746	2,907,522,406	2,557,404,492
Expenses:								
Maintenance of way and structures	1,005,225,418	893,969,662	374,027,893	326,672,968	209,758,212	194,496,500	421,439,313	372,800,194
Depreciation	93,189,189	91,234,140	39,529,037	38,980,072	16,232,888	15,641,279	37,427,254	36,612,789
Retirements	9,575,019	9,185,928	2,143,524	2,008,691	1,473,630	1,943,146	5,957,865	5,234,091
Deferred maintenance	*2,922,634	*4,229,764	*99,146	*211,493	*890,916	*209,715	*1,932,572	*3,808,555
Amortization of defense projects	1,572,348	967,568	120,646	82,804	390,804	280,978	1,060,898	603,705
Equalization	317,950	*760,493	*1,551,857	*1,881,106	1,498,997	871,127	370,810	249,486
All other	903,493,546	797,572,283	333,855,699	287,693,919	191,052,829	175,969,686	378,555,058	333,908,678
Maintenance of equipment	1,255,245,663	1,145,437,144	533,374,052	490,073,104	253,470,158	231,704,568	468,401,453	423,659,472
Depreciation	185,072,614	172,613,009	72,968,631	69,300,353	41,102,162	38,002,166	71,001,821	65,310,490
Retirements	*836,323	*382,922	*105,248	*59,704	*210,372	*99,019	*520,703	*224,199
Deferred maintenance and major repairs	*2,905,528	*3,433,799	*97,00	129,180	*907,182	*1,312,534	*1,901,346	*2,250,445
Amortization of defense projects	11,650,579	11,196,914	4,040,329	4,161,627	2,150,512	2,240,744	4,859,738	4,794,543
Equalization	1,256,876	791,345	351,944	3,835	895,581	561,599	9,351	225,911
All other	1,061,607,445	964,652,597	456,215,396	416,537,813	210,349,457	192,311,612	394,952,592	355,803,172
Traffic	142,840,386	129,417,448	48,893,725	44,635,943	31,210,856	27,721,338	62,735,805	57,060,167
Transportation—Rail line	2,829,714,102	2,516,235,113	1,200,129,974	1,090,598,487	524,389,813	467,305,251	1,105,194,315	958,331,375
Miscellaneous operations	98,881,263	95,669,240	37,394,005	35,571,857	14,646,083	14,017,428	46,841,175	46,079,955
General	201,524,579	179,378,398	76,690,736	69,208,171	43,844,704	38,985,714	80,989,139	71,184,513
Railway operating expenses	5,533,431,411	4,960,207,005	2,270,510,385	2,056,760,530	1,007,319,826	974,230,799	2,185,601,200	1,929,115,676
Net revenue from railway operations	1,628,144,222	1,371,533,645	564,433,293	446,448,882	341,789,723	296,795,947	721,921,206	628,288,816
Railway tax accruals	755,842,189	687,122,556	259,740,865	230,925,704	171,764,684	157,797,494	324,336,640	298,399,358
Pay-roll taxes	198,688,523	259,911,588	82,562,633	108,690,564	39,165,995	50,679,782	76,959,895	100,841,241
Federal income taxesy	321,958,885	216,542,186	87,514,106	41,613,675	83,607,375	63,793,564	150,837,404	111,134,947
All other taxes	235,194,781	210,668,782	89,664,126	80,621,464	48,991,314	43,324,148	96,539,341	86,723,170
Railway operating income	872,302,033	684,411,089	304,692,428	215,523,178	170,025,039	138,998,453	397,584,566	329,889,4
Equipment rents—Dr. balance	100,580,355	93,846,790	45,060,136	42,682,000	*11,833,111	*5,587,944	67,353,330	56,752,734
Joint facility rent—Dr. balance	28,973,864	30,711,050	13,957,958	14,942,337	4,161,021	4,721,779	10,854,885	11,046,9?4
Net railway operating income	742,747,814	559,853,249	245,674,334	157,898,841	117,697,129	139,864,618	319,376,351	262,08?,790
Ratio of expenses to revenues (per cent)	77.3	78.3	80.1	82.2	75.9	76.6	75.2	75.4

* Includes income tax and surtax.
y Includes credits amounting to $38,904,407 for reduction in unemployment insurance from 3.0 per cent to 0.5 per cent retroactive to January 1, 1948.
* Decrease, deficit, or other reverse item.

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GENERAL NEWS

(*Continued from page* 54)

Financial Analysts Hear Perlman on Modern Railroad Operations

"Technical improvements, reduced fixed charges, improved employee relations, and aggressive thinking in every department give added proof that the railroads are in the best position in their history to remain dominant in the field of mass transportation," A. E. Perlman, general manager of the Denver & Rio Grande Western, told a panel of security analysts at the first midwest forum of the National Federation of Financial Analysts Societies at Chicago on December 8. Mr. Perlman urged his audience "not to be content to study the statistics of ancient history in evaluating railroad securities," but to get out on the ground and analyze traffic trends in the territory served, and study the men responsible for the railroad's operations. Mr. Perlman declared that "given the traffic potential and good management, other obstacles become insignificant."

Mr. Perlman outlined the work the railroads are doing in laboratory research, mechanization of maintenance-of-way work, modernization of yards, installation of centralized traffic control, and mechanization of freight station operation.

In connection with laboratory research, Mr. Perlman discussed the spectographic analysis of Diesel lubricants on the D. & R. G. W. He stated that not only were they getting increased use out of the lubricants, but also—by being able to detect the presence of metal in the oil—they are able to determine when mechanical irregularities exist, and remedy them before real damage is done. The Rio Grande is making spectographic analyses of oil samples after each run of its Diesel locomotives, he said. In discussing maintenance-of-way problems Mr. Perlman outlined progress in pressure grouting methods and mechanization of rail-laying gangs, comparing the latter to Ford production lines.

In discussing modern yards, Mr. Perlman told the investment counselors that elevated towers—employing teletype, telephone, radio and paging and speaking systems—have greatly aided in reducing the amount of time cars spend at these points.

Gurley Scans Depreciation Inadequacy

In 1948 the Atchison, Topeka & Santa Fe paid out at least 38 per cent of money needed for perpetuation of its property in the form of income tax and "indications are that a higher percentage may be effective tomorrow." This fact was brought out by President Fred G. Gurley in an address before the Bankers Club of Kansas City on December 6, entitled, "The Economics of Transportation."

Although the general concept is that depreciation charges should provide the funds for replacement, such is not the case any longer in this inflationary period. The Santa Fe today accrues depreciation against the original cost of a box car, "when, as a matter of fact, the entire depreciation accrual when the box car is worn out and is scrapped equals only about 50 per cent of the cost of the new box car which takes it place." As a result, Mr. Gurley emphasized, "we have charged against our expenses only 50 per cent of the cost of continuing to have a box car available for the customer."

This deficiency, according to the Santa Fe president, "means that . . . our expenses have been understated," and that the road's income taxes are higher than they would otherwise have been. Stating it in another way, "We find that money which is essential to the continued operation of the plant is being taxed away because our bookkeeping reflects certain 'profits' when, in fact, the profit does not exist."

In another portion of his address, Mr. Gurley drew attention to "that peculiar technique" (which he characterized as "peculiarly American") which makes it possible for companies to do two things at the same time—(a) to compete and (b) to work in cooperation. In illustration, the speaker declared:

"The Santa Fe and the M.-K.-T. compete for business between Fort Worth and Kansas City and, on the other hand, they cooperate with each other and with the shipper about a shipment going from Fort Worth to Chicago. The agent of the M.-K.-T. at Fort Worth will arrange for the movement of a car from Kansas City to Chicago via the Santa Fe. . .

"I am convinced that nowhere else in the world can you find the stimulant of competition and the spirit and obligations of cooperation so coupled together that the greatest possible service is given at the lowest possible cost."

Budd Delivers First of 63 Cars to Central of Brazil

The first all-stainless steel railroad passenger car built by the Budd Company at its Red Lion plant in Philadelphia, Pa., for the Central of Brazil was accepted on December 20 by Dr. Caio da Souza Brasil, inspector for the railroad. The car was a 56-passenger coach which, together with 22 other cars, making a shipload, will be delivered in Rio de Janeiro early next spring. The 23 cars, part of an order for 63, will be put into service as the first air-conditioned train in Brazil. Replacing the present "Cruzeiro do Sul," which covers the 250 mi. between Rio de Janeiro and Sao Paulo on a daily schedule, the train will be powered by new electric and Diesel-electric locomotives.

Current Publications

TRADE PUBLICATIONS

Growing with Schenectady. 47 pages, illustrations. Published by the American Locomotive Company, Schenectady, N. Y. Free.

A very interesting account of the first 100 years of what is now the American Locomotive Company. Organized in 1848 as the Schenectady Locomotive Engine Manufactory, the company, despite reverses suffered from time to time, managed to keep going and growing until it became The American Locomotive Company of today. The men who organized the company and those responsible for its growth and development are all mentioned and photographs of a number of them are included. Following the history of the company, the entry of Alco into the Diesel-electric field and the part it played in the recent war are discussed.

BOOKS

Some Industrial Engineering Aspects of the Continuing Growth of Industries in Louisiana and Texas, by H. Dick Golding. 183 pages. Fellowship thesis to be filed originally at Louisiana State University, Baton Rouge, La., and copies to be provided later to other universities.

This research study is a detailed analysis of the factors in the location of industries, using the experience of Louisiana and Texas as examples. It has a fourfold purpose: (1) To study and classify the more important industrial engineering factors that enter into management's decision governing plant location; (2) to evaluate and associate these locational factors, whereever possible, with the current industrial development of Louisiana and Texas, with particular reference to the chemical industry; (3) to provide the industrial manager, the consulting engineer or the plant engineer seeking a new location or considering expansion in Louisiana and Texas with a handy reference and guide, and (4) to serve as an important and useful tool for commercial and trade organization executives, businessmen, industrialists and others in their examination and study of locational factors of industry as they exist in Louisiana and Texas.

PAMPHLET

Railways of Poland in 1947. 4 pages. Issued by the Office of International Trade, United States Department of Commerce. Available from the Government Printing Office, Washington 25, D.C. Price, five cents.

Covers the set-up of the railway administration and existing facilities; construction and rehabilitation projects under way; and the inventory, production and repair of locomotives and roll ing stock.

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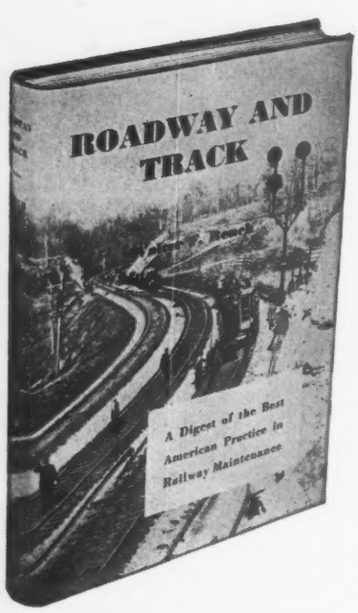

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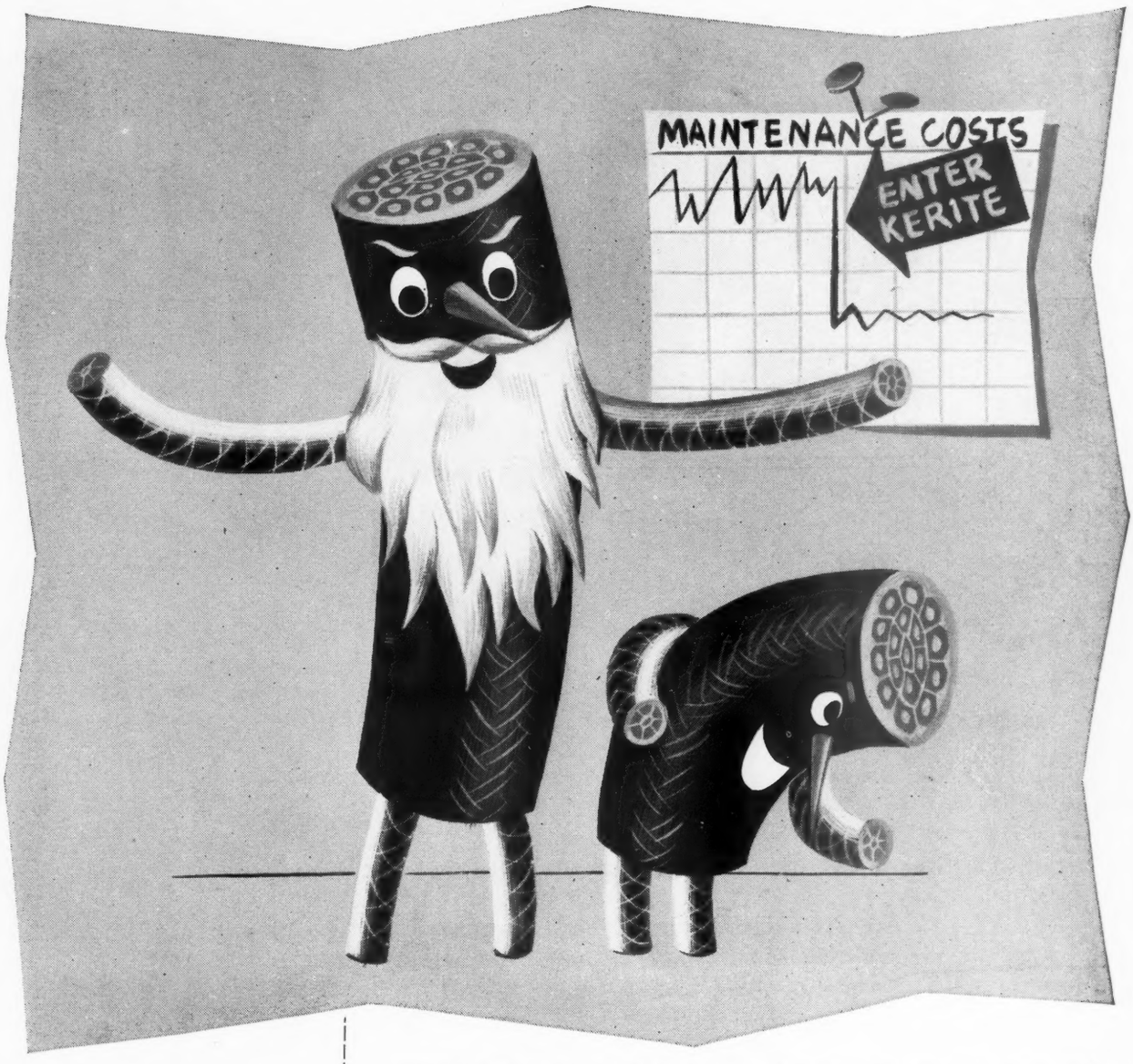

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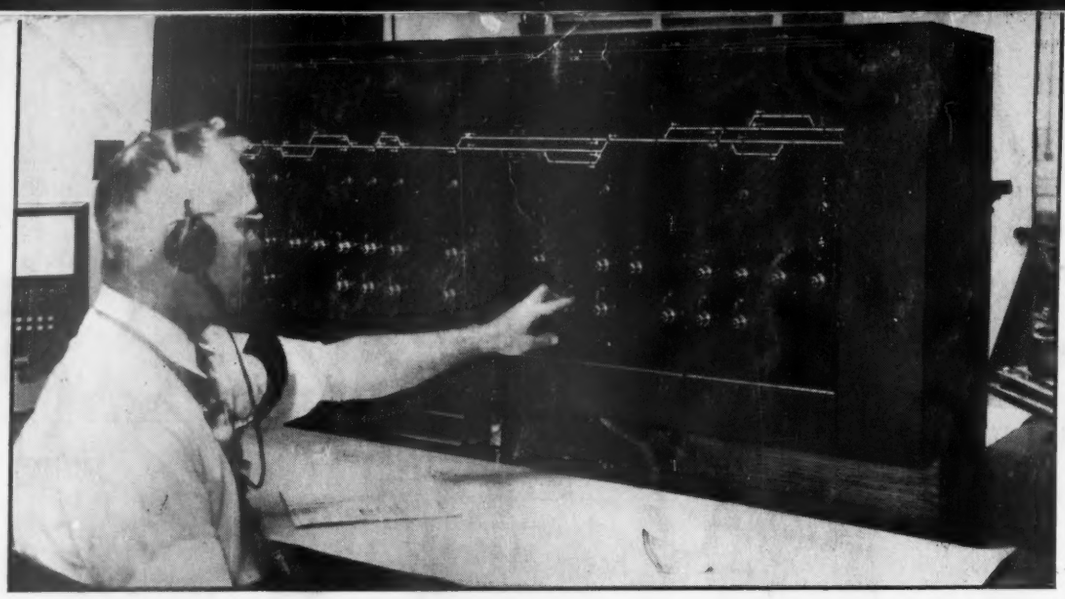

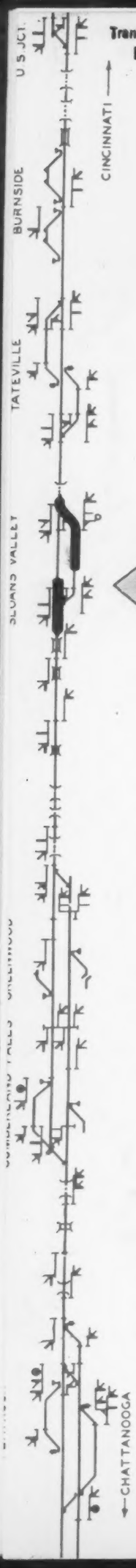

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*Railway Age, Feb. 7, 1948.

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